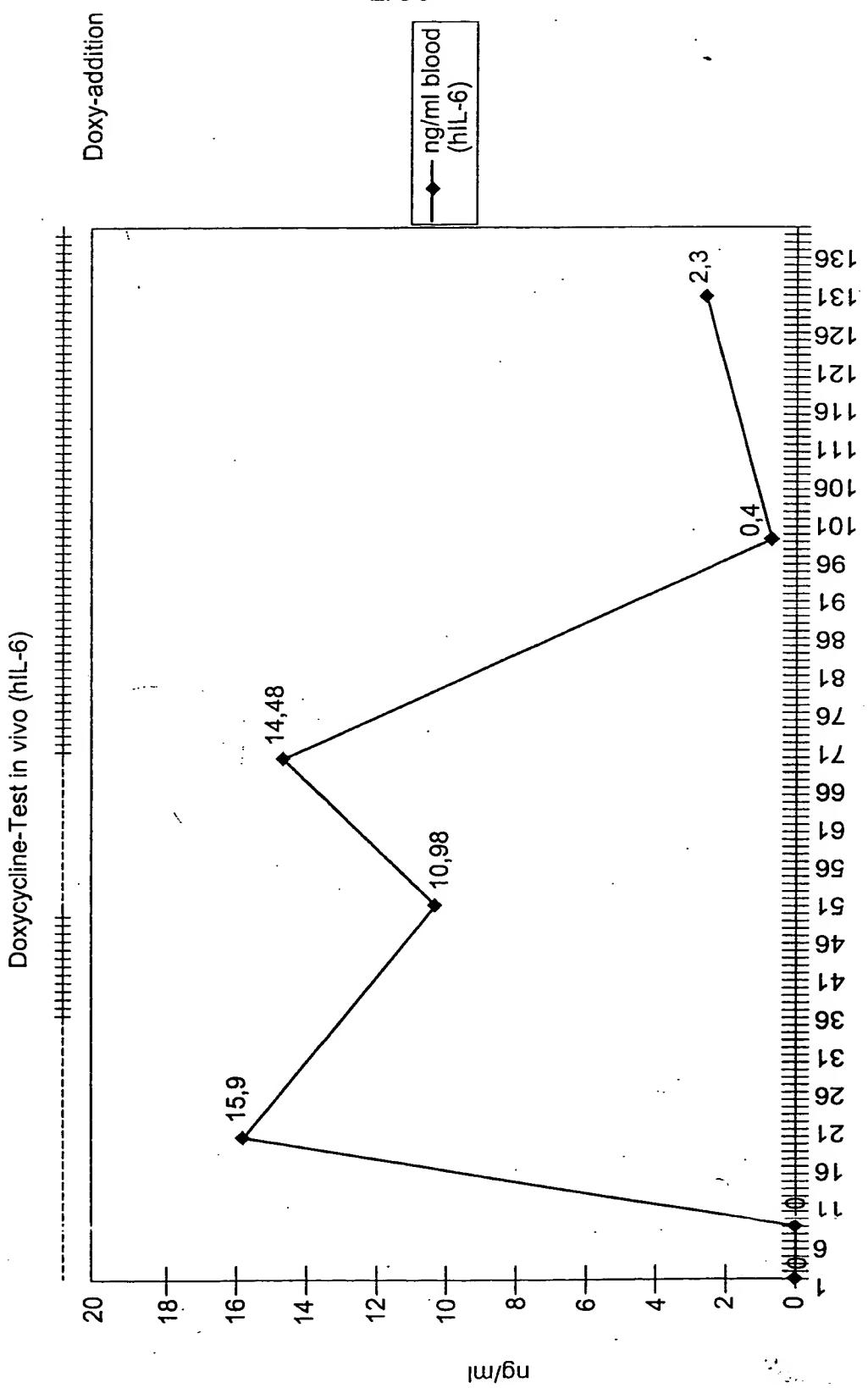


- 2/56 -



3/56

Scid-mice [OG,SM,OD,SC(-):hIL-6

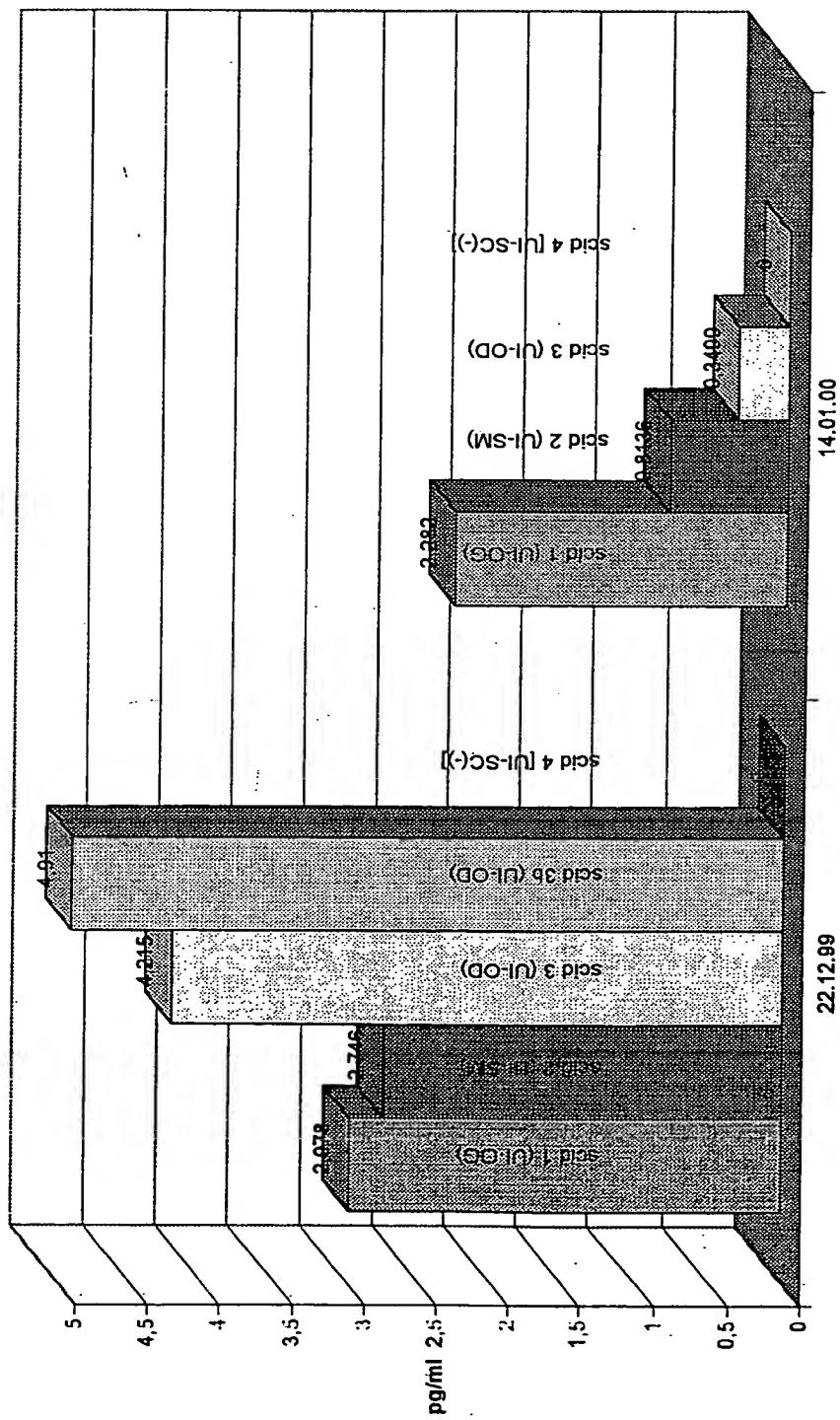
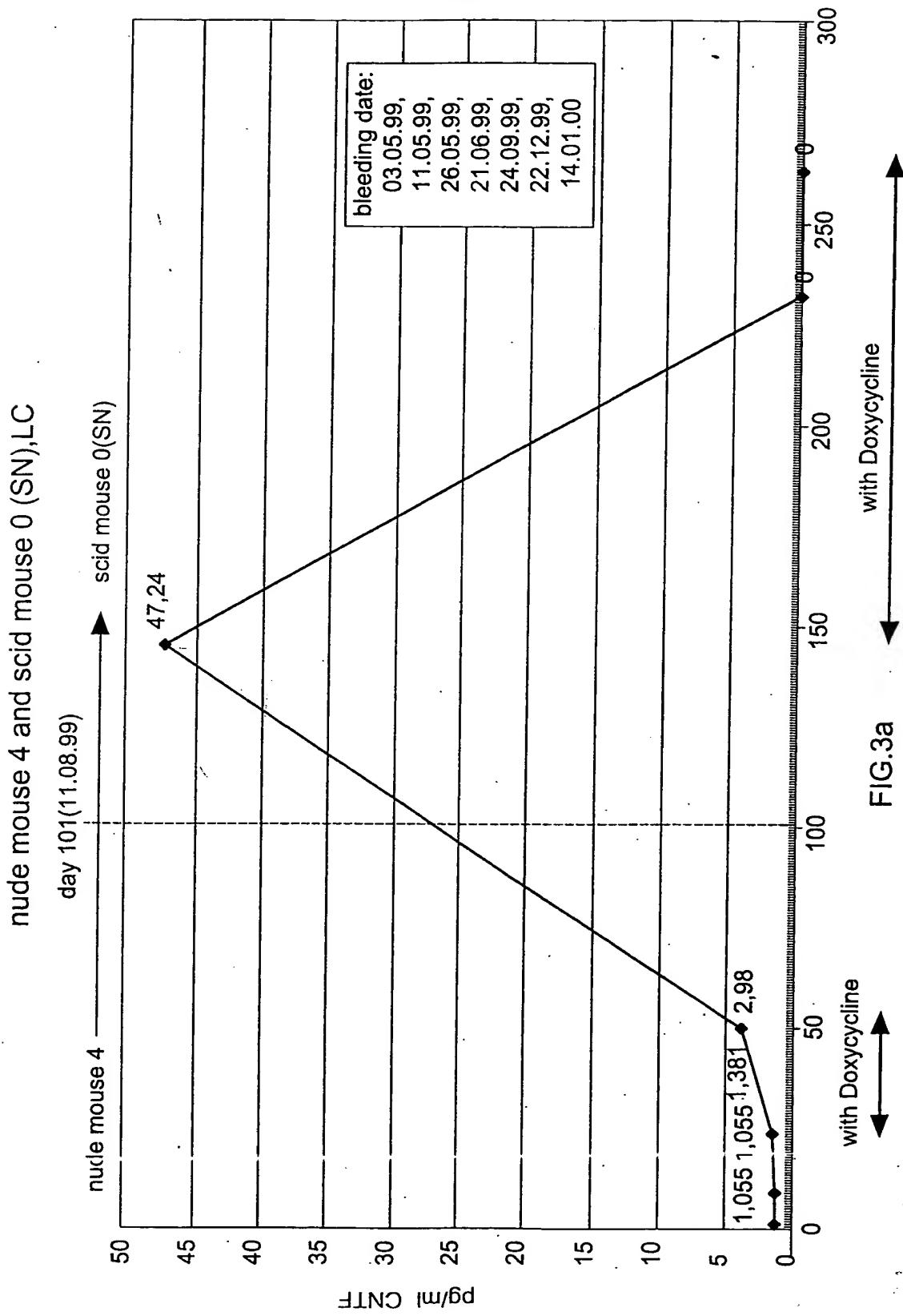
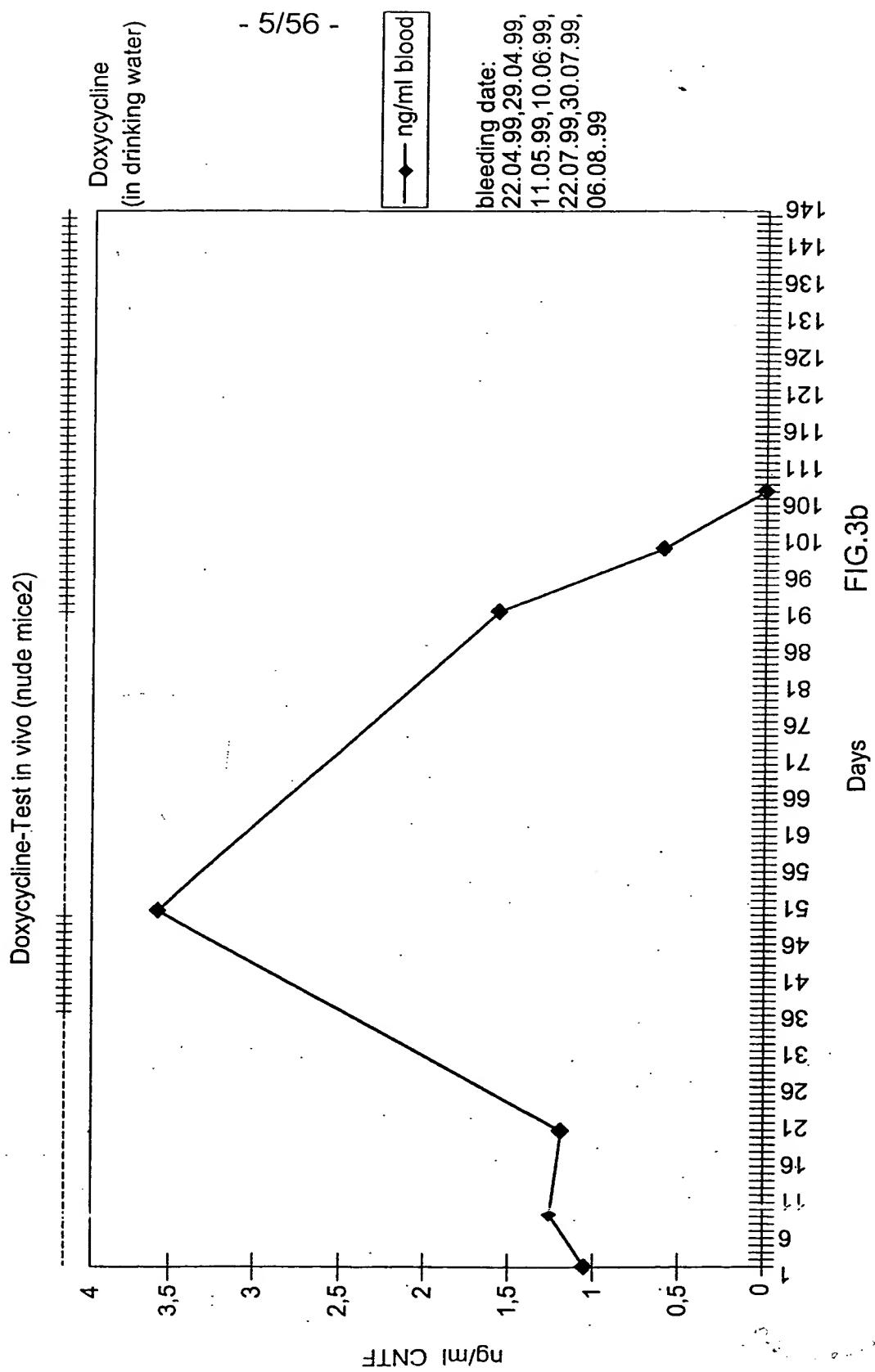


FIG.3

- 4/56 -





- 6/56 -

Cloning of growth factor genes

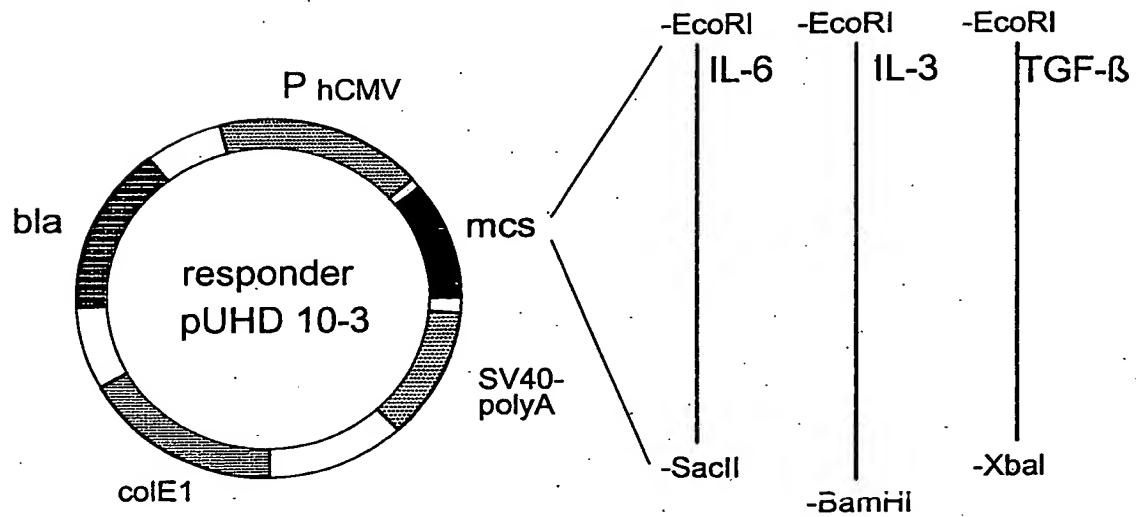
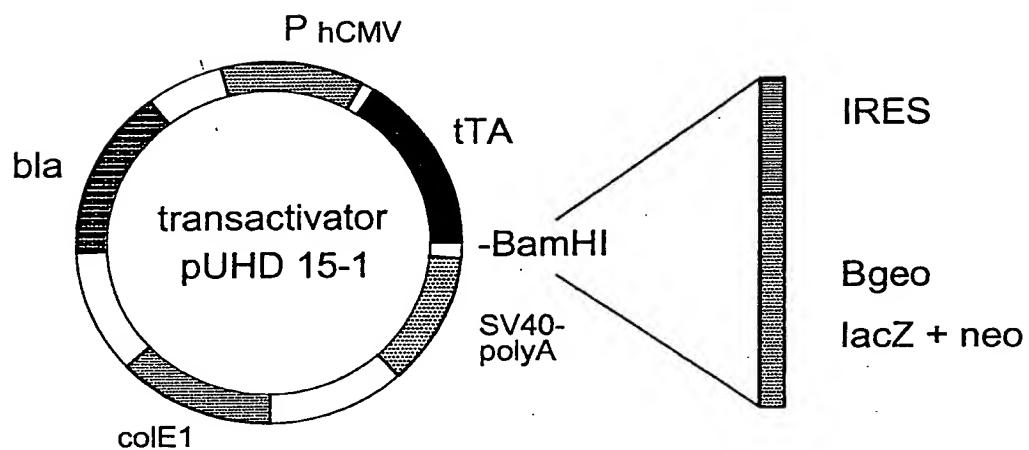


FIG.4

- 7/56 -

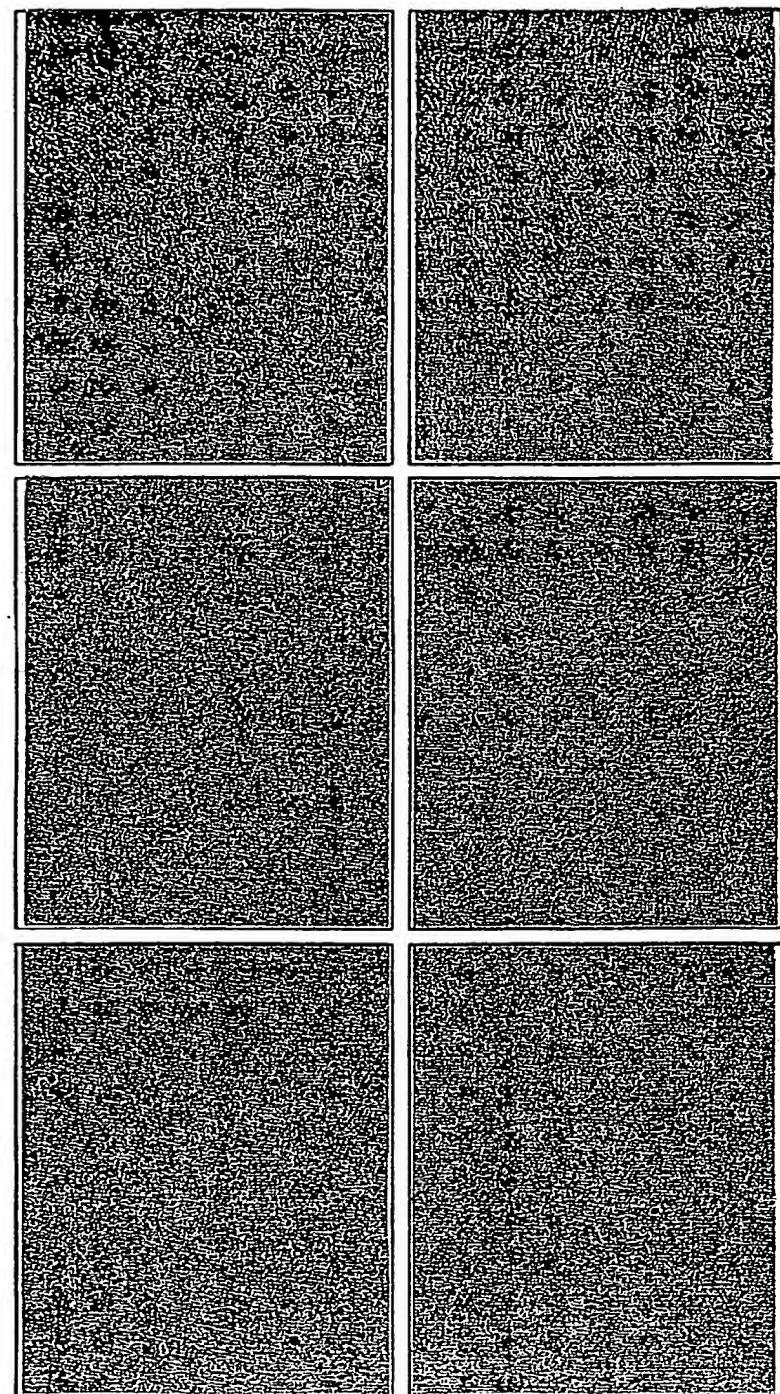
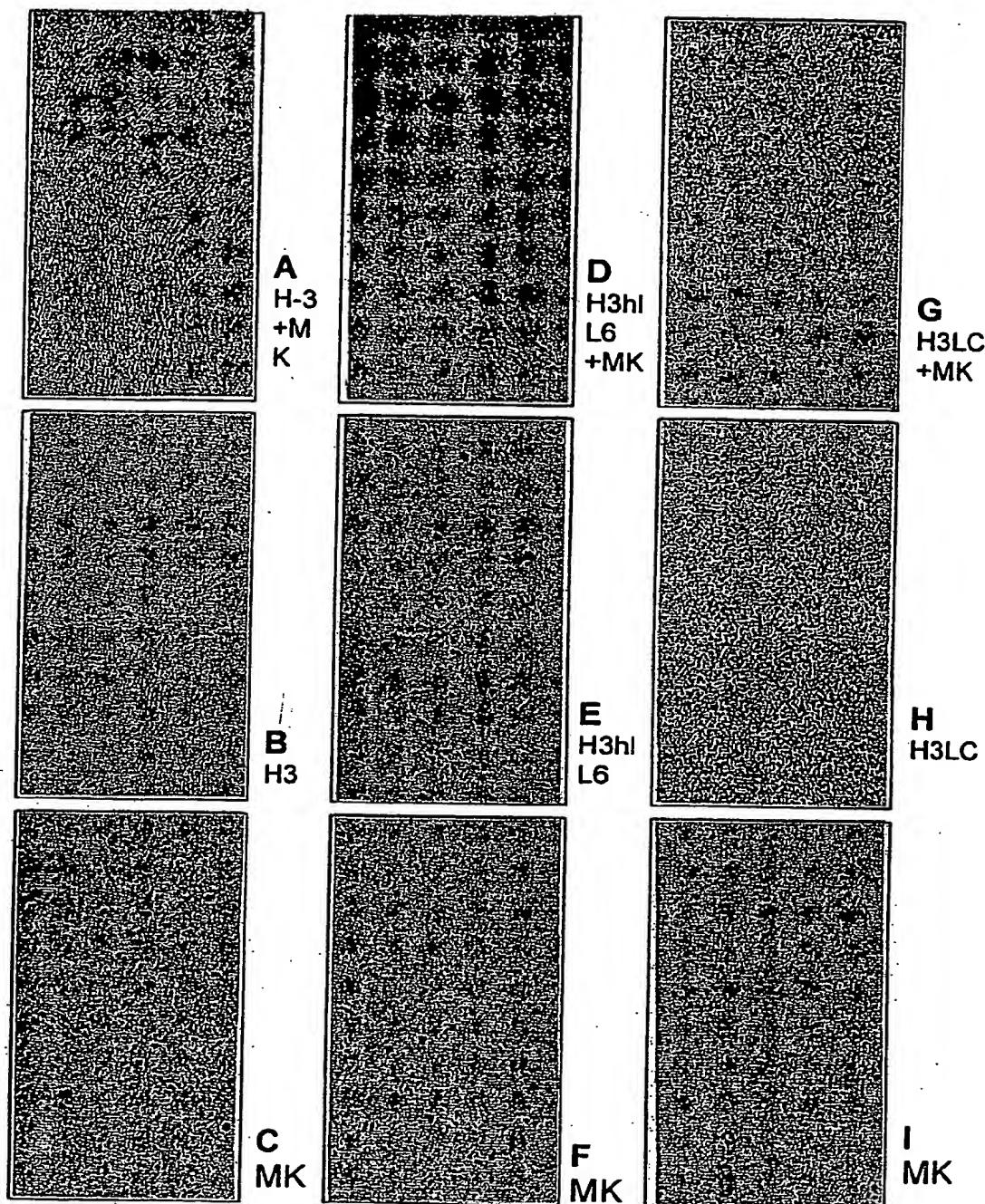


FIG.5

5wk

- 8/56 -



2wk

FIG.6.

A.MK(MK+H3-GFP)

- 9/56 -

B.H3-GFP(MK+H3-GFP)

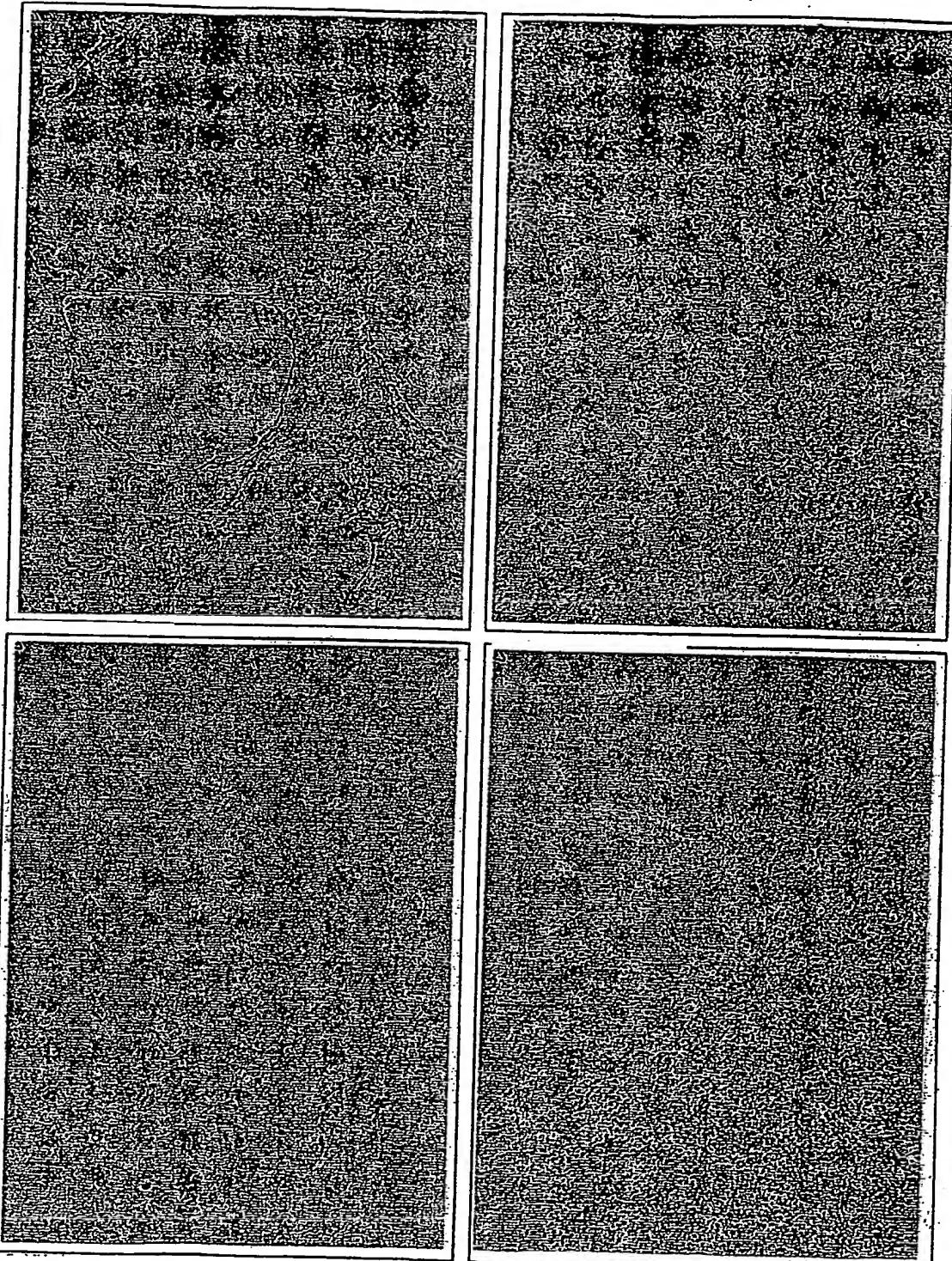
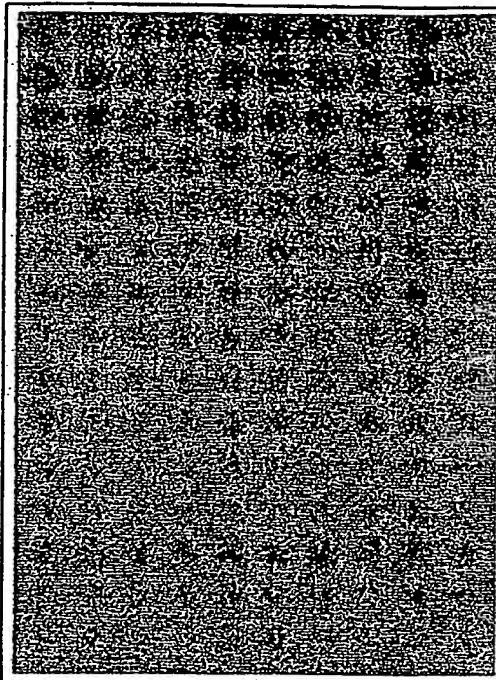


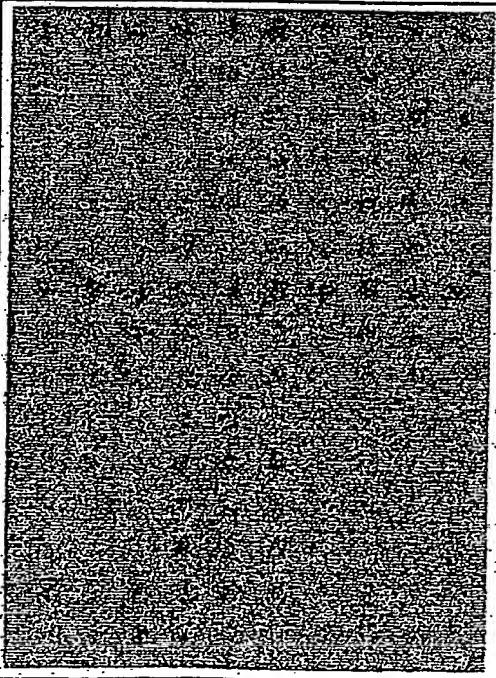
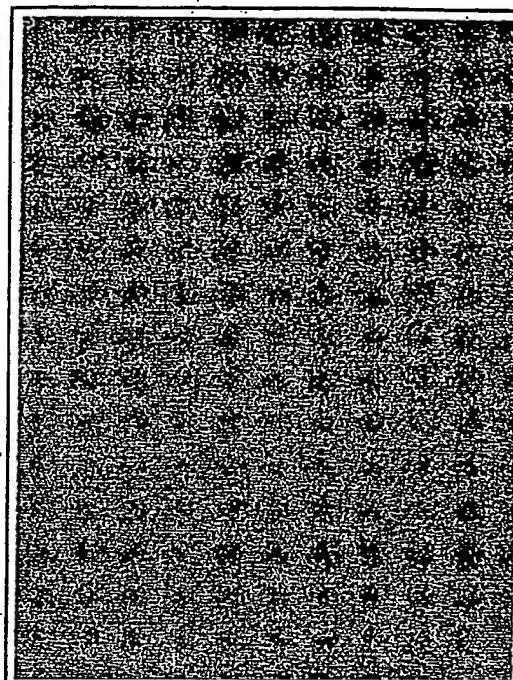
FIG.7

- 10/56 -

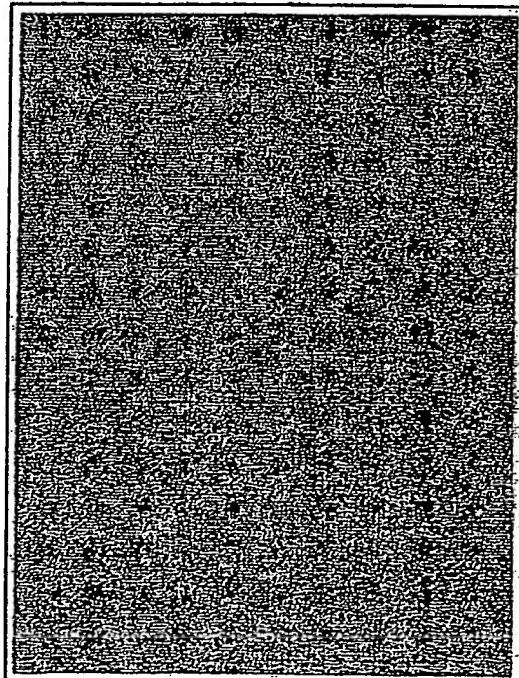
A.MK (MK+H3-GFP-hIL6)



B.H3-GFP-hIL6(MK+H3-GFP-hIL6)



C.MK alone

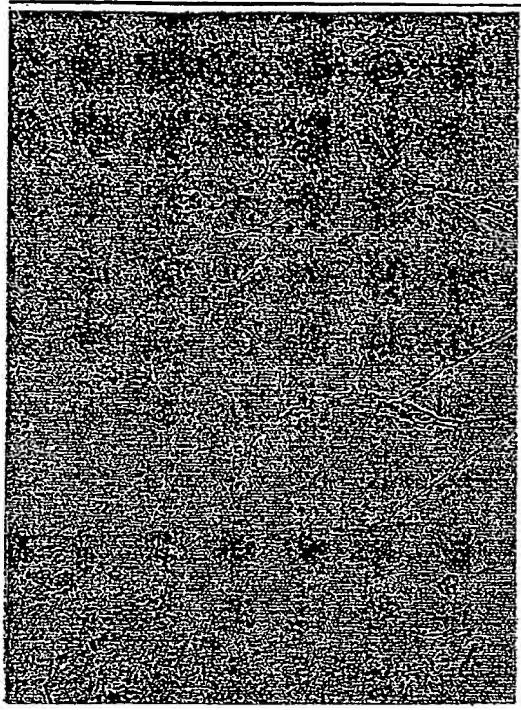


D.H3-GFP-hIL6 alone

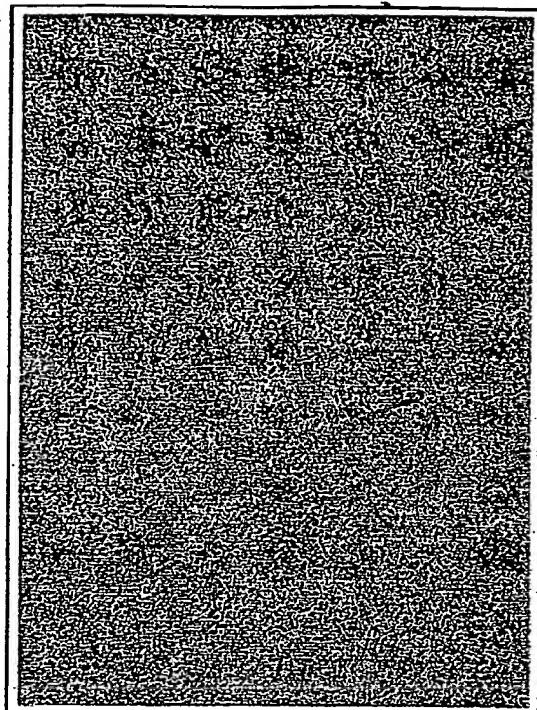
FIG.8

- 11/56 -

A. MK (MK+H3-LC)



B. H3-LC (MK+H3-LC)



C. MK alone

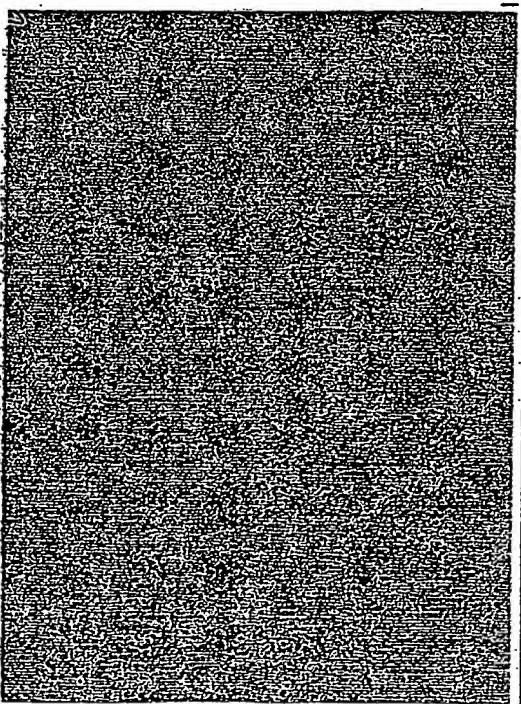
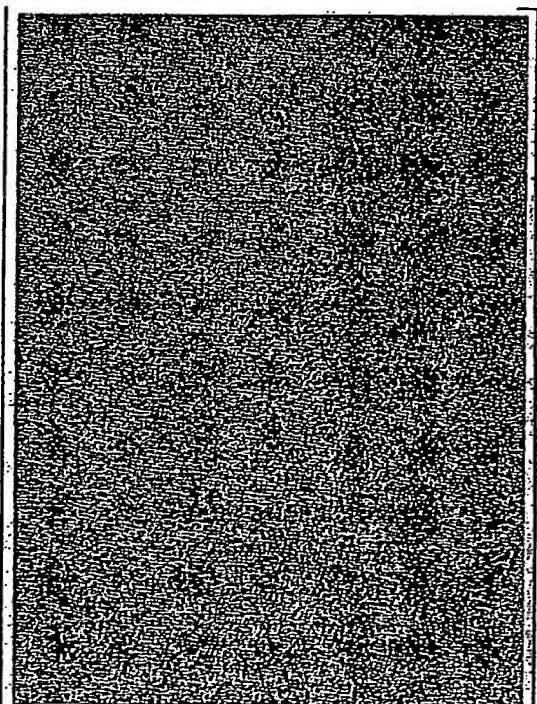


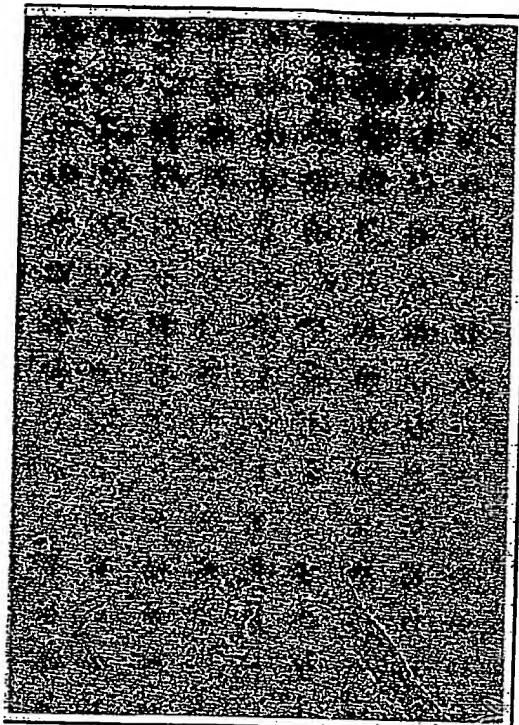
FIG.9

D. H3-LC alone

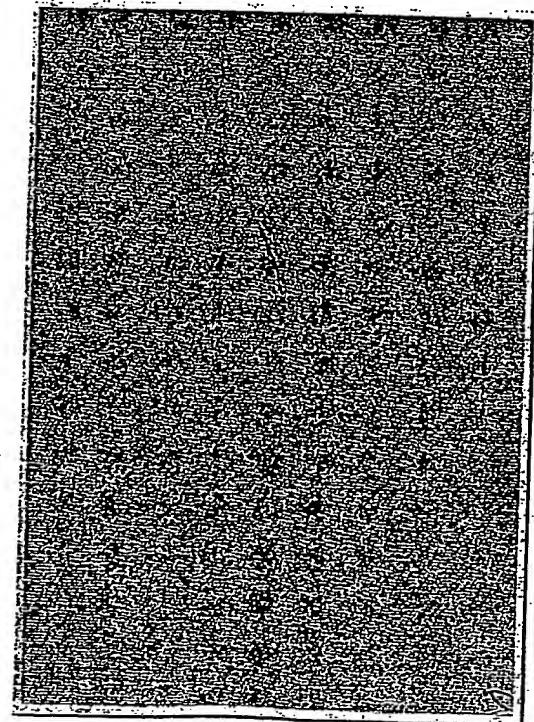
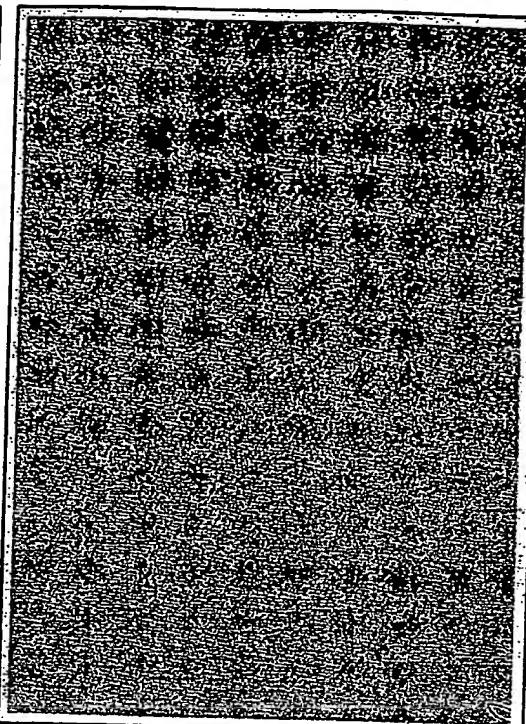


- 12/56 -

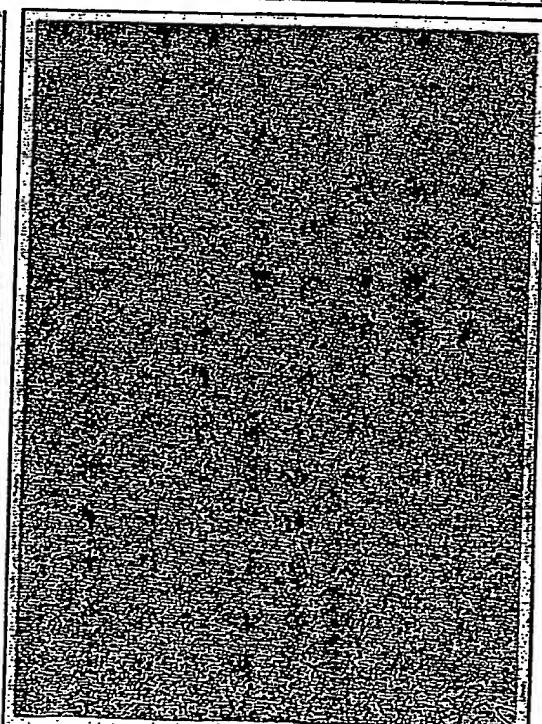
A.Sk (Sk+H3-GFP)



B.H3-GFP (Sk+H3-GFP)



C.Sk alone



D.H3-GFP alone

FIG.10

A. SK (Sk+H3-GFP-hIL6) - 13/56 - B. H3-GFP-hIL6 (Sk+H3-GFP-hIL6)

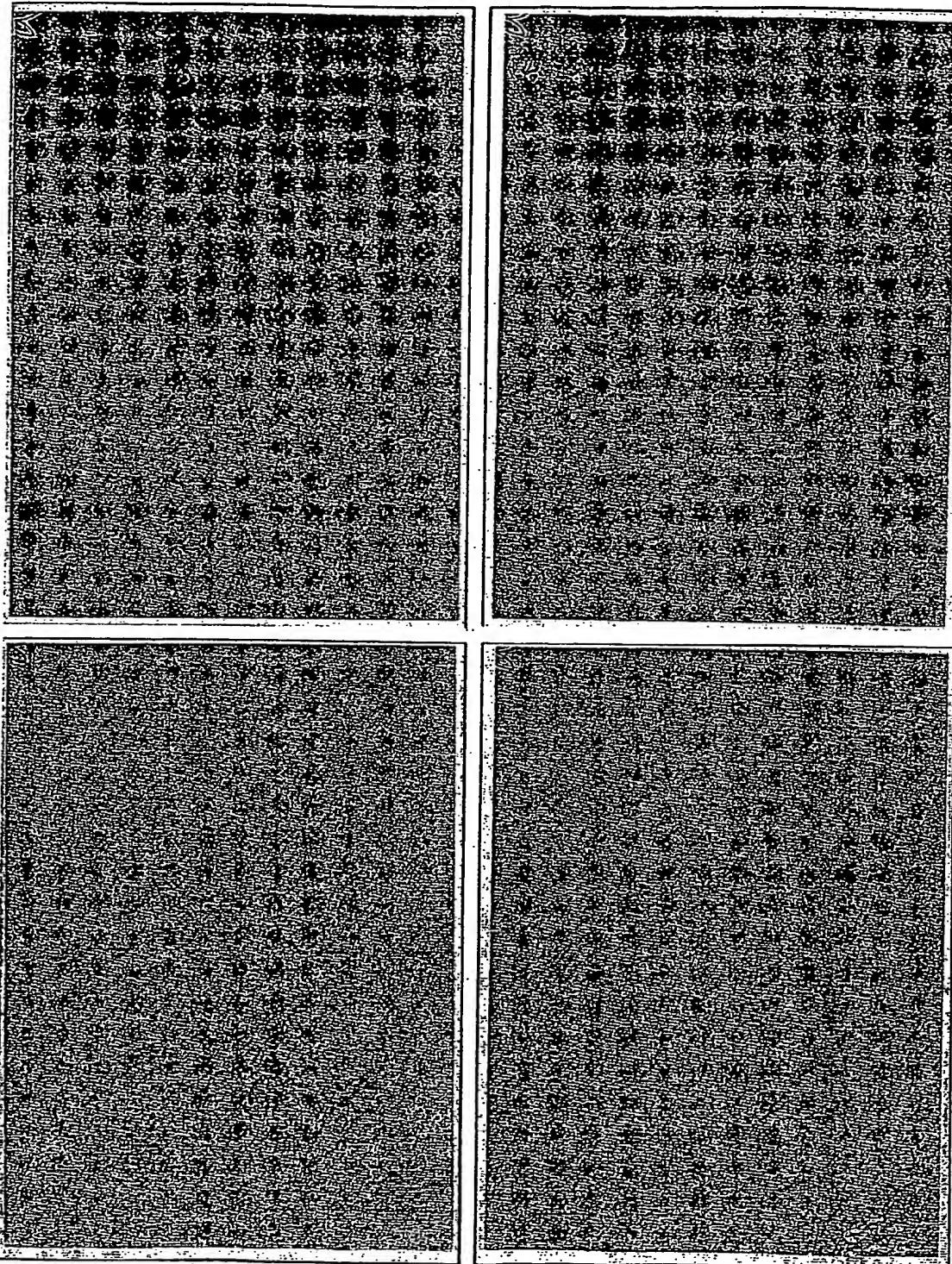
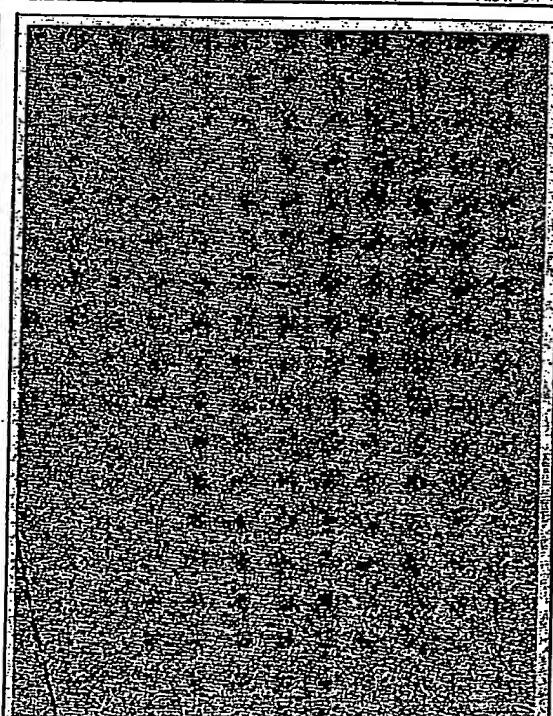
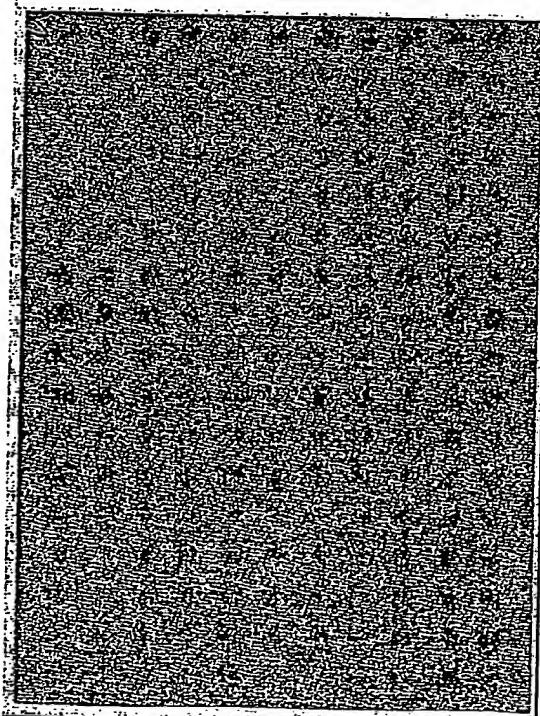
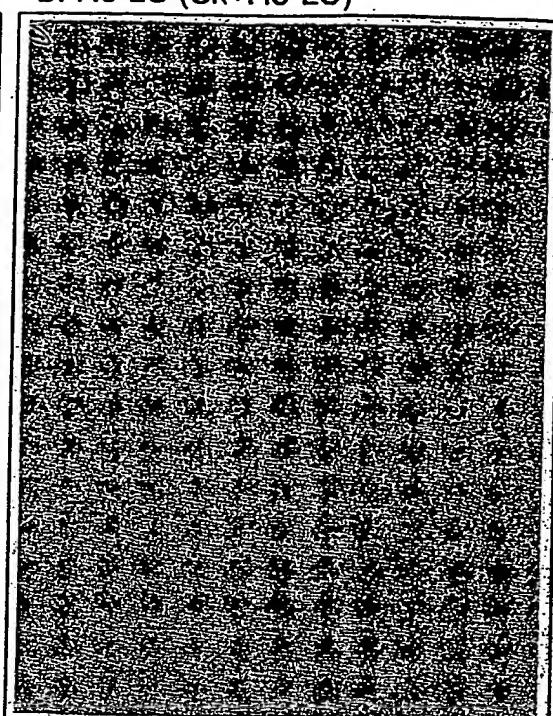
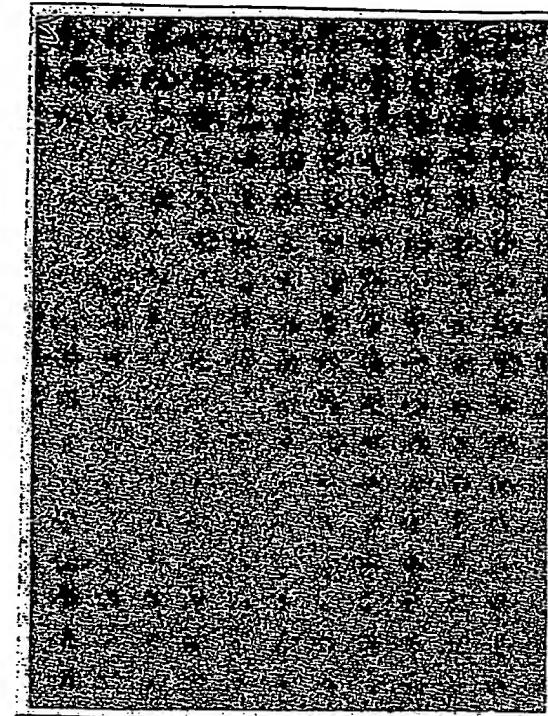


FIG.11

A. Sk (Sk+H3-LC)

- 14/56 -

B. H3-LC (Sk+H3-LC)

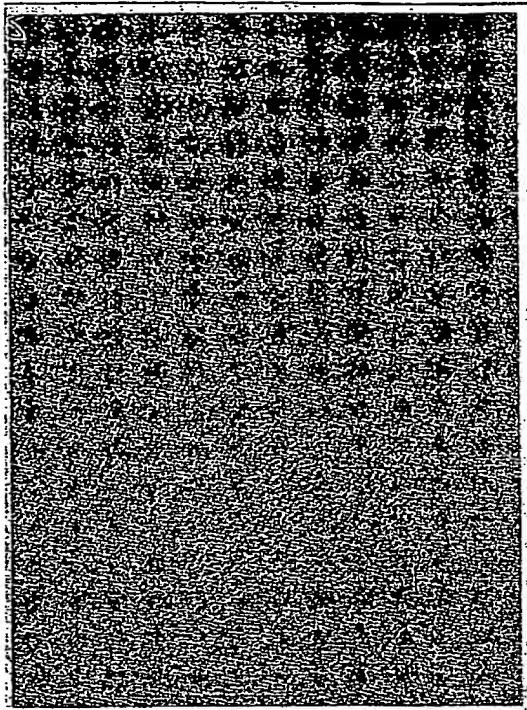


C. Sk alone

D. H3-LC alone

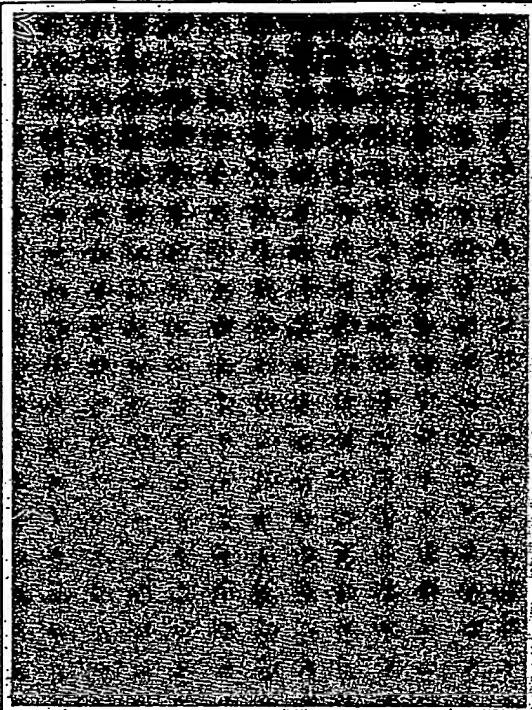
FIG.12

A. Sk (Sk+MK)

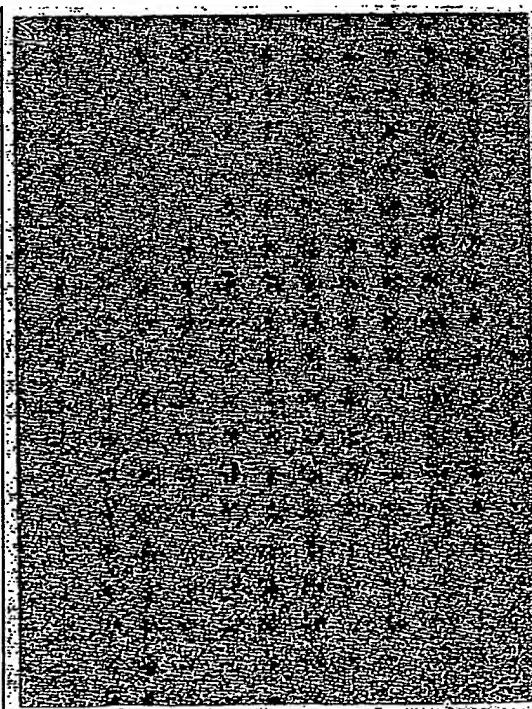


- 15/56 -

B. MK (Sk+MK)



C. Sk alone

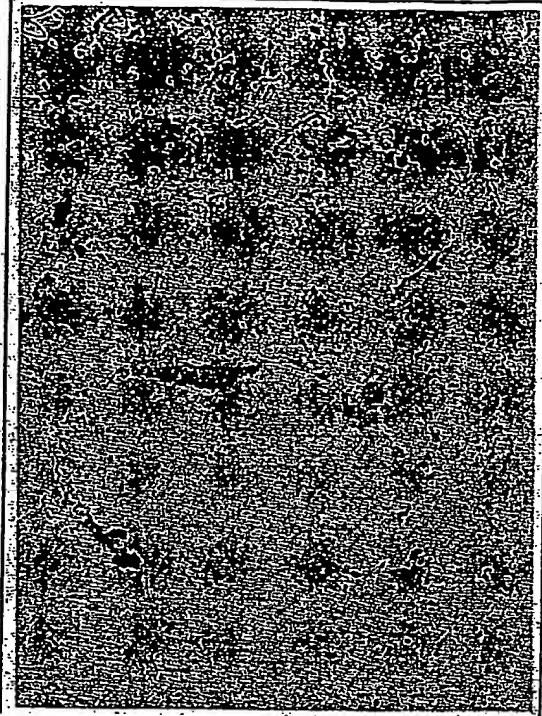


D. MK alone

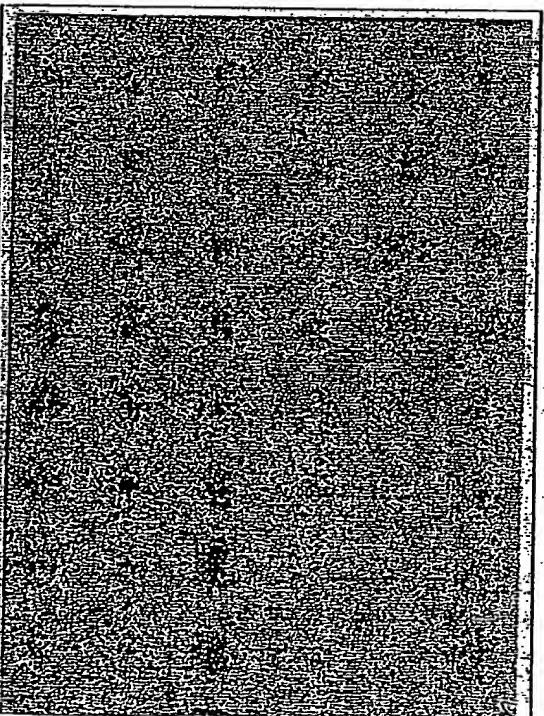
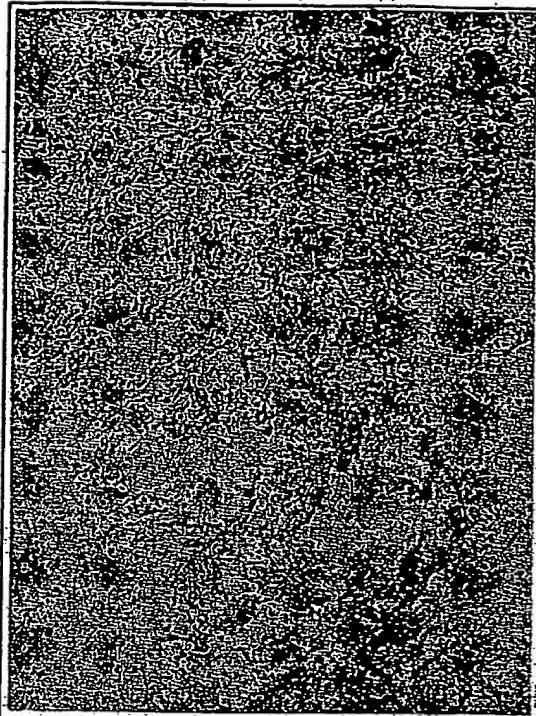
FIG.13

- 16/56 -

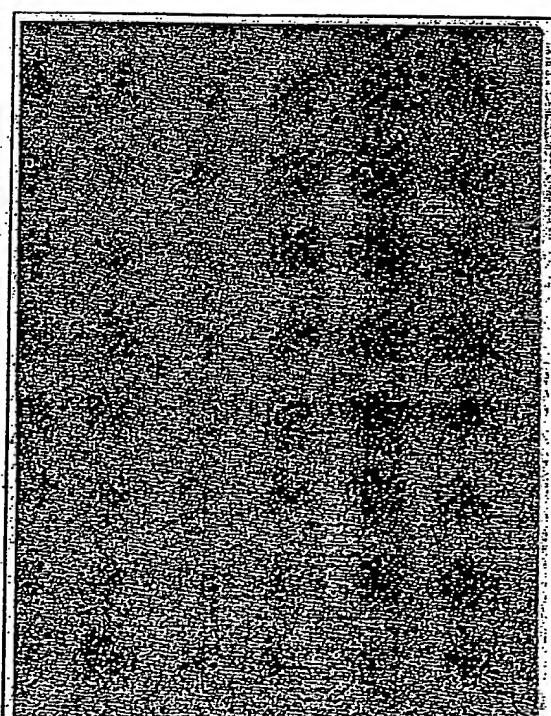
A. Lg (Lg+L14)



B. L14 (Lg+L14)



C. Lg alone

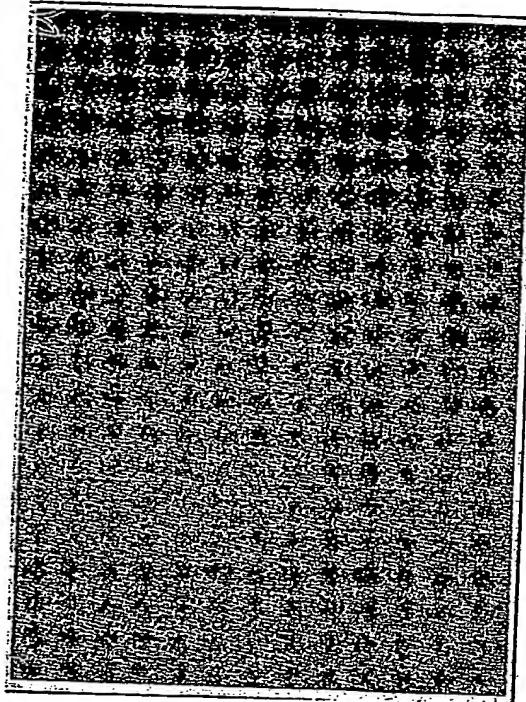


D. L14 alone

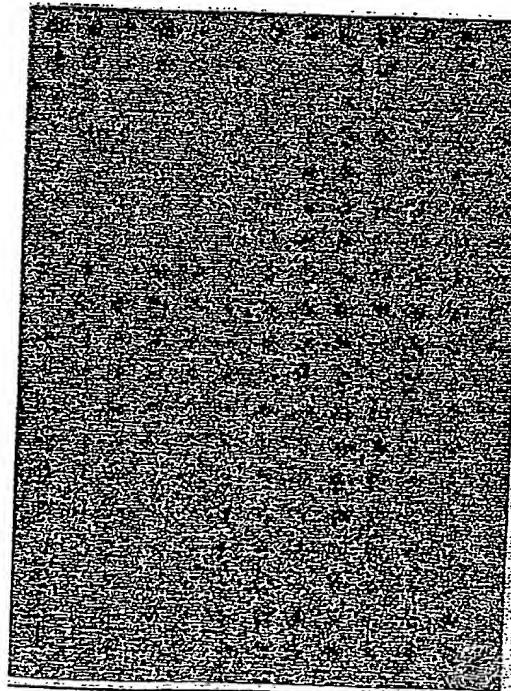
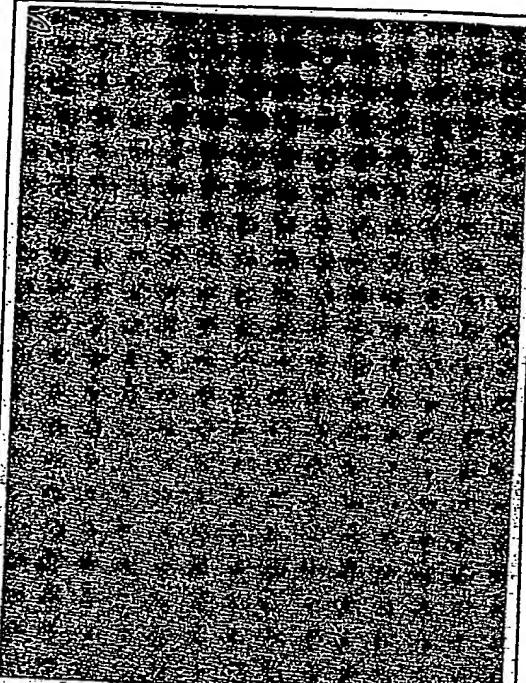
FIG.14

- 17/56 -

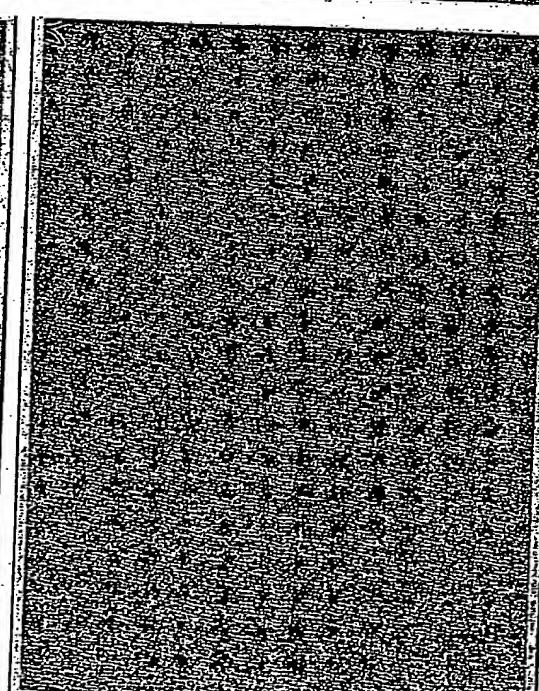
A. Lg (Lg+L14-hIL3)



B. L14-hIL3 (Lg+L14-hIL3)



C. Lg alone



D. L14-hIL3 alone

FIG.15

- 18/56 -

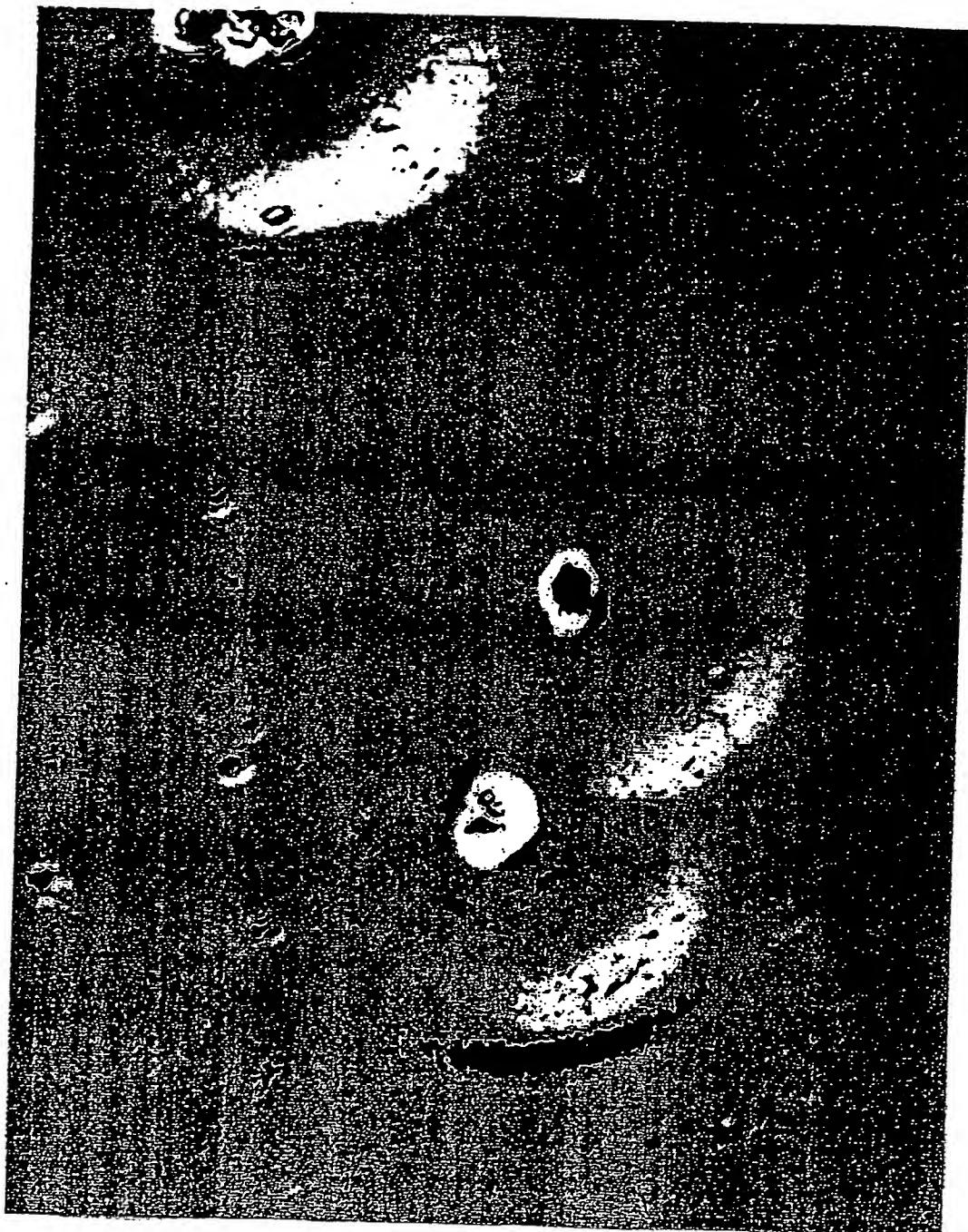


FIG.16

- 19/56 -

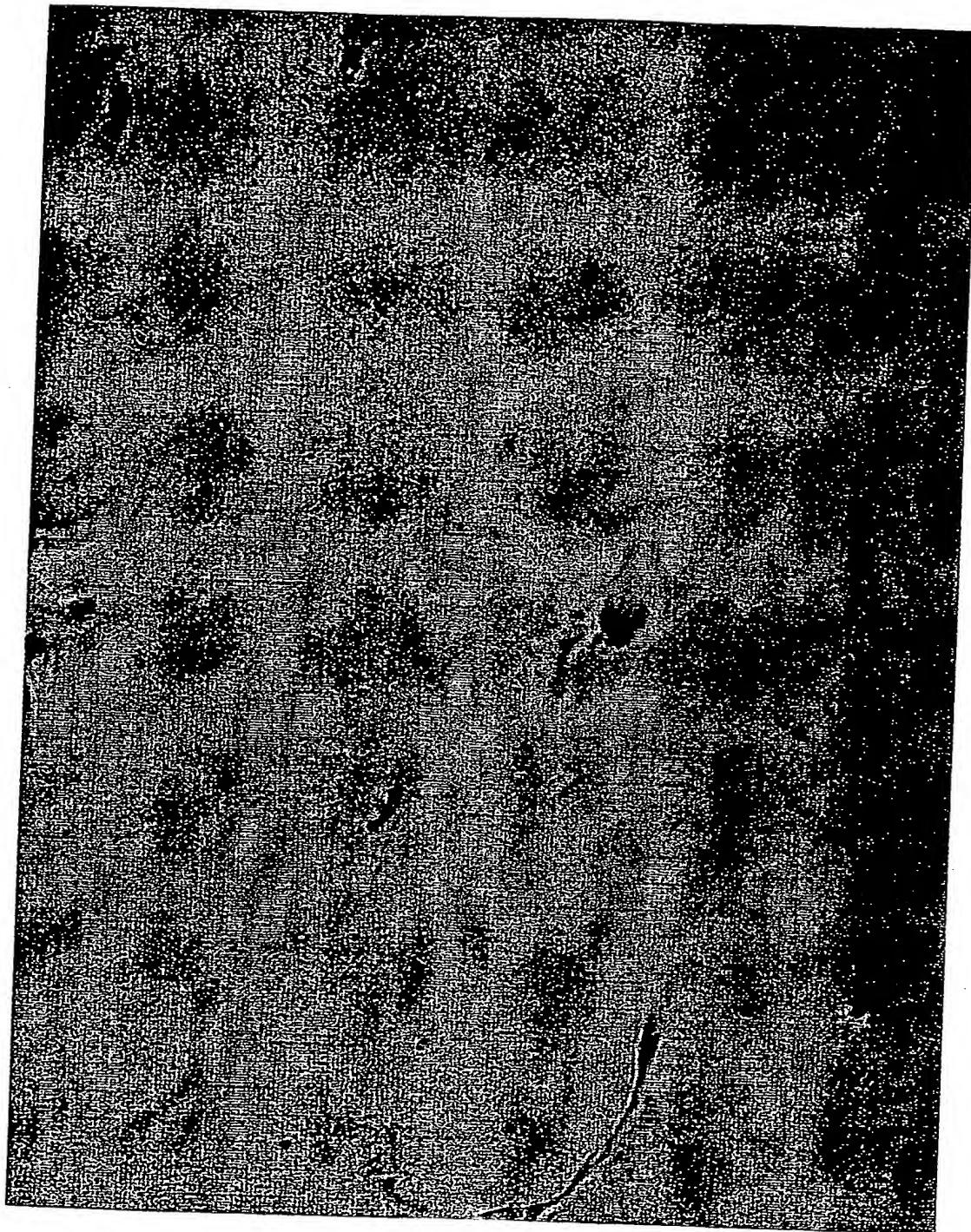


Fig. 17.

pD12JCVPlong-hCNTF

- 20/56 -

Length: 7969 July 22, 1999

1 GCTAGCGATT TAGGTGACAC TATAGAATAG ATCTcgacnn nGTCACCCCT
 51 AGAGTCGAGC TGTGACGGTC CTTACAATGA AATGCANCTG GGTTATCTTC
 101 TTCCCTGATGG CAGGGGTTAC AGGTAAGGGG CTCCAAGTC CCAAACCTGA
 151 GGGTCCATAA ACTCTGTGAC AGTGGCAATC ACTTTGCCTT TCTTTCTACA
 201 GGGGTGAATT CGGCTTCAC AGAGCATTCA CCGCTGACCC CTCACCGTCG
 251 GGACCTCTGT AGCCGCTCTA TCTGGCTAGC AAGGAAGATT CGTTCAGACC
 301 TTGACTGCTC TTACGGAATC CTATGTAAGT TGCCTATTTT GCTGTTATCT
 351 GTTTCCCTT CATCTTTTT GATCCAGCAA CTTACCATCA CGCATCAGCT
 401 CCATTACCAA TTGTGAAAGC TCTAATCATA TAGTCATTCA TATAGGTTAT
 451 TTGACATGGG CCCTTCCCTT GAGGAAACCC ATGTGACTTT ATTTTCTTCC
 501 TCTGGGCTGT TTAGGAGATG AAGTTACTTG AATGAGAAAA TATATATGGA
 551 GTTCTAGAAA GGATTGGTTT ATATGTCTTG GAGGCTATTT CAAAATTTAT
 601 TTGGCCATAT ATTCTGAATA CTACCTAGAA CAGATTAGCC ATGGGCCCTN
 651 TGGGTTNTTC ATAAGCCATT GTTCTGAANT TTTTAGCTT TGTAAATGAA
 701 AGGTTTATGG GATAGGAAGA GTNCTATGAA CGTGGGAGGA ATTTGTAAAT
 751 CCTACCAATT TNTNCTATAT AGCATTAGCC CCCACCTTTT ANTATTCTGC
 801 ATCAAAAGTA AGATTGTGTC TAAAGAGAAA GGTNAGCTAT CAAAAGGACT
 851 CCTATAANAT TCNTTGGAAA CTTNTGGAAN TGTCAAATTT NTTTGAGCTA
 901 ATTNTTGGAG TTCCAAANTT TGTCTTNTNA CAGTNAAGGG GGANCCCCAT
 951 TCANATTNC CCCCCTNNN ANAATGCTTG GGGGAAAAAA CCTNCCAACC
 1001 CCNTTGTGGG ANGAAGTTTT TTTAANNTTT TAAGGCTNGN NGAAACNGGN
 1051 TTTTAATTTT TTGGGNANAN CGCCTNTCCC CGGTACCAAGG AAAATCAGGA
 1101 CCTNTTTTG GGGNNNGNCN CCNACNGGG GGNAAAANGG GAAATTTCN
 1151 CANAAAAAAAT CTTTCCGnn nnnnntgaag catcaggccc tgaacaagaa
 1201 catcaacctg gactctgcgg atggatgcc agtggcaagc actgatcagt
 1251 ggagtgagct gaccgaggca gagcgcactcc aagagaacct tcaagcttat

- 21/56 -

1301 cgtacccccc atgtttgtt ggccaggcgc ttagaagacc agcaggtgca
 1351 ttttacccca accgaaggtg acttccatca agctatacat acccttcttc
 1401 tccaaatcgcc tgcctttgca taccagatag aggagttaat gataactcctg
 1451 gaataacaaga tcccccgcaa tgaggctgat gggatgccta ttaatgttgg
 1501 agatggtggt ctctttgaga agaagctgtg gggcctaaag gtgctgcagg
 1551 agctttcaca gtggacagta aggtccatcc atgacccctcg tttcatttct
 1601 tctcatcaga ctgggatccc agcacgtggg agccattata ttgctaaacaa
 1651 caagaaaatg tagnnnnnngc ggccTGCGCC GTCTTCCCG ACGTTAAAGG
 1701 GATGAAACCA CAAGACTTAC CTTCGCTCGG AAGTAAAACG ACAAACACAC
 1751 ACAGTTTGC CCGTTTCAT GAGAAATGGG ACGTCTGCAC ACGAAACCGC
 1801 CCGTCGCTTG AGGAGGACTT GTACAAACAC GATCTATGCA GTTTCCCCA
 1851 ACTGACACAA ACCGTGCAAC TTGAAACTCC GCCTGGTCTT TCCAGGTCTA
 1901 GAGGGGTAAC ATTTTGTACT GTGTTTGACT CCACGCTCGA TCCACTAGCG
 1951 AGTGTAGTA GCGGTACTGC TGTCTCGTAG CGGAGCATGT TGGCCGTGGG
 2001 AACACCTCCT TGGTAACAAG GACCCACGGG GCCGAAAGCC ATGTCCTAAC
 2051 GGACCCAAAC TGTGTGCAAC CCCAGCACGG CAGCTTTACT GTGAAACCCA
 2101 CTTCAAGGTG ACATTGATAC TGGTACTCAA ACACGTGGTGA CAGGCTAAGG
 2151 ATGCCCTCA GGTACCCCGA GTAAACAAGC GACACTCGGG ATCTGAGAAG
 2201 GGGACTGGGA CTTCTTTAAA GTGCCAGTT TAAAAAGCTT CTACGCCTGA
 2251 ATAGGTGACC GGAGGCCGGC ACCTTTCCCT TTATAACCAC TGAACACATG
 2301 GAAGACGCCA AAAACATAAA GAAAGGCCCG GCGCCATTCT ATCCTCTAGA
 2351 GGATGGAACC GCTGGAGAGC AACTGCATAA GGCTATGAAG AGATACGCC
 2401 TGGTTCTGG AACAAATTGCT TTACAGATG CACATATCGA GGTGAACATC
 2451 ACGTACGCCG AATACTTCGA AATGTCCGTT CGGTTGGCAG AAGCTATGAA
 2501 ACGATATGGG CTGAATACAA ATCACAGAAT CGTCGTATGC AGTGAAAATC
 2551 CTCCTCAATT CTTTATGCCG GTGTTGGCG CGTTATTTAT CGGAGTTGCA
 2601 GTTGCGCCCG CGAACGACAT TTATAATGAA CGTGAATTGC TCAACAGTAT
 2651 GAACATTTCG CAGCCTACCG TAGTGTGTTGT TTCCAAAAAG GGGTTGCAAA

- 22/56 -

2701 AAATTTGAA CGTGCAAAA AAATTACCA TAATCCAGAA AATTATTATC
 2751 ATGGATTCTA AAACGGATTA CCAGGGATT CAGTCGATGT ACACGTTCGT
 2801 CACATCTCAT CTACCTCCCG GTTTTAATGA ATACGATTTT GTACCAAGT
 2851 CCTTTGATCG TGACAAAACA ATTGCACTGA TAATGAATTCTCTGGATCT
 2901 ACTGGGTTAC CTAAGGGTGT GGCCCTTCCG CATAGAACTG CCTGCGTCAG
 2951 ATTCTCGCAT GCCAGAGATC CTATTTTGG CAATCAAATC ATTCCGGATA
 3001 CTGCGATTTT AAGTGGTGT CCATTCCATC ACGGTTTGG AATGTTTACT
 3051 ACACCTGGAT ATTTGATATG TGGATTTCGA GTCGTCTTAA TGTATAGATT
 3101 TGAAGAAGAG CTGTTTTAC GATCCCTTCA GGATTACAAA ATTCAAAGTG
 3151 CGTTGCTAGT ACCAACCCCTA TTTTCATTCT TCGCCAAAAG CACTCTGATT
 3201 GACAAATACG ATTTATCTAA TTTACACGAA ATTGCTTCTG GGGGCGCACC
 3251 TCTTCGAAA GAAGTCGGGG AAGCGGTTGC AAAACGCTTC CATCTTCAG
 3301 GGATACGACA AGGATATGGG CTCACTGAGA CTACATCAGC TATTCTGATT
 3351 ACACCCGAGG GGGATGATAA ACCGGGCGCG GTCGGTAAAG TTGTTCCATT
 3401 TTTTGAAGCG AAGGTTGTGG ATCTGGATAC CGGGAAAACG CTGGGGCGTTA
 3451 ATCAGAGAGG CGAATTATGT GTCAGAGGAC CTATGATTAT GTCCGGTTAT
 3501 GTAAACAATC CGGAAGCGAC CAAACGCTTG ATTGACAAGG ATGGATGGCT
 3551 ACATTCTGGA GACATAGCTT ACTGGGACGA AGACGAACAC TTCTTCATAG
 3601 TTGACCGCTT GAAGTCTTTA ATAAATACA AAGGATATCA GGTGGCCCCC
 3651 GCTGAATTGG AATCGATATT GTTACAACAC CCCAACATCT TCGACGCGGG
 3701 CGTGGCAGGT CTTCCGACG ATGACGCCGG TGAACTTCCC GCCGCCGTTG
 3751 TTGTTTGGA GCACGGAAAG ACGATGACGG AAAAAGAGAT CGTGGATTAC
 3801 GTCGCCAGTC AAGTAACAAC CGCGAAAAG TTGCGGGAG GAGTTGTGTT
 3851 TGTGGACGAA GTACCGAAAG GTCTTACCGG AAAACTCGAC GCAAGAAAAA
 3901 TCAGAGAGAT CCTCATAAAAG GCCAAGAAGG GCGGAAAGTC CAAATTGTAA
 3951 AATGTAACTG TATTCAAGCGA TGACGAAATT CTTAGCTATT GTAATGACTC
 4001 TAGAGGATCT TTGTGAAGGA ACCTTACTTC TGTGGTGTGA CATAATTGGA
 4051 CAAACTACCT ACAGAGATTT AAAGCTCTAA GGTAAATATA AAATTTTAA

- 23/56 -

4101 GTGTATAATG TGTAAACTA CTGATTCTAA TTGTTTGTGT ATTTTAGATT
 4151 CCAACCTATG GAACTGATGA ATGGGAGCAG TGGTGAATG CCTTTAATGA
 4201 GGAAAACCTG TTTGCTCAG AAGAAATGCC ATCTAGTGAT GATGAGGCTA
 4251 CTGCTGACTC TCAACATTCT ACTCCTCCAA AAAAGAAGAG AAAGGTAGAA
 4301 GACCCCAAGG ACTTCCTTC AGAATTGCTA AGTTTTGTA GTCATGCTGT
 4351 GTTTAGTAAT AGAACTCTG CTTGCTTG TATTTACACC ACAAAGGAAA
 4401 AAGCTGCACT GCTATACAAG AAAATTATGG AAAAATATTC TGTAACCTTT
 4451 ATAAGTAGGC ATAACAGTTA TAATCATAAC ATACTGTTT TTCTTACTCC
 4501 ACACAGGCAT AGAGTGTCTG CTATTAATAA CTATGCTCAA AAATTGTGTA
 4551 CCTTAGCTT TTTAATTGT AAAGGGGTTA ATAAGGAATA TTTGATGTAT
 4601 AGTGCCTTGA CTAGAGATCA TAATCAGCCA TACCACATTT GTAGAGGTTT
 4651 TACTTGCTTT AAAAAACCTC CCACACCTCC CCCTGAACCT GAAACATAAA
 4701 ATGAATGCAA TTGTTGTTGT TAACTTGTTT ATTGCAGCTT ATAATGGTTA
 4751 CAAATAAAGC AATAGCATCA CAAATTCAC AAATAAAGCA TTTTTTCAC
 4801 TGCATTCTAG TTGTGGTTTG TCCAAACTCA TCAATGTATC TTATCATGTC
 4851 TGGATCCCCG GGTCCCTATA GTGAGTCGTA TTAGCTTGGC GTAATCATGG
 4901 TCATAGCTGT TTCTGTGTG AAATTGTTAT CCGCTCACAA TTCCACACAA
 4951 CATACTGAGCC GGAAGCATAA AGTGTAAAGC CTGGGGTGCC TAATGAGTGA
 5001 GCTAACTCAC ATTAATTGCG TTGCGCTCAC TGCCCGCTTT CCAGTCGGGA
 5051 AACCTGTCGT GCCAGCTGCA TTAATGAATC GGCCAACGCG CGGGGAGAGG
 5101 CGGTTTGCCT ATTGGGCGCT CTTCCGCTTC CTCGCTCACT GACTCGCTGC
 5151 GCTCGGTGCGT TCGGCTGCGG CGAGCGGTAT CAGCTCACTC AAAGGCGGTA
 5201 ATACGGTTAT CCACAGAATC AGGGGATAAC GCAGGAAAGA ACATGTGAGC
 5251 AAAAGGCCAG CAAAAGGCCA GGAACCGTAA AAAGGCCCGG TTGCTGGCGT
 5301 TTTTCCATAG GCTCCGCCCG CCTGACGAGC ATCACAAAAA TCGACGCTCA
 5351 AGTCAGAGGT GGCAGAACCC GACAGGACTA TAAAGATACC AGGCCTTCC
 5401 CCCTGGAAGC TCCCTCGTGC GCTCTCCTGT TCCGACCCCTG CCGCTTACCG
 5451 GATACTGTC CGCCTTCTC CCTTCGGAA GCGTGGCGCT TTCTCAATGC

- 24/56 -

5501 TCACGCTGTA GGTATCTCAG TTGGTGTAG GTCGTTCGCT CCAAGCTGGG
 5551 CTGTGTGCAC GAACCCCCCG TTCAGCCCGA CCGCTGCGCC TTATCCGGTA
 5601 ACTATCGTCT TGAGTCCAAC CCGGTAAGAC ACGACTTATC GCCACTGGCA
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 5701 AGAGTTCTTG AAGTGGTGGC CTAAC TACGG CTACACTAGA AGGACAGTAT
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 6151 TACGATACGG GAGGGCTTAC CATCTGGCCC CAGTGCTGCA ATGATAACCGC
 6201 GAGACCCACG CTCACCGGCT CCAGATTTAT CAGCAATAAA CCAGCCAGCC
 6251 GGAAGGGCCG AGCGCAGAAG TGGTCCTGCA ACTTTATCCG CCTCCATCCA
 6301 GTCTATTAAAT TGTTGCCGGG AAGCTAGAGT AAGTAGTTCG CCAGTTAATA
 6351 GTTTGCGCAA CGTTGTTGCC ATTGCTACAG GCATCGTGGT GTCACGCTCG
 6401 TCGTTGGTA TGGCTTCATT CAGCTCCGGT TCCCAACGAT CAAGGCGAGT
 6451 TACATGATCC CCCATGTTGT GCAAAAAAAGC GGTTAGCTCC TTGGTCCCTC
 6501 CGATCGTTGT CAGAAGTAAG TTGGCCCGAG TGTTATCACT CATGGTTATG
 6551 GCAGCACTGC ATAATTCTCT TACTGTCATG CCATCCGTAA GATGCTTTTC
 6601 TGTGACTGGT GAGTACTCAA CCAAGTCATT CTGAGAATAG TGTATGCGGC
 6651 GACCGAGTTG CTCTTGCCCG GCGTCAATAC GGGATAATAC CGCGCCACAT
 6701 AGCAGAACTT TAAAAGTGT CATCATTGGA AAACGTTCTT CGGGCGAAA
 6751 ACTCTCAAGG ATCTTACCGC TGTTGAGATC CAGTTCGATG TAACCCACTC
 6801 GTGCACCCAA CTGATCTTCA GCATCTTTA CTTTCACCAAG CGTTTCTGGG
 6851 TGAGCAAAAA CAGGAAGGCA AAATGCCGCA AAAAAGGGAA TAAGGGCGAC

- 25756 -

6901 ACGGAAATGT TGAATACTCA TACTCTTCCT TTTCAATAT TATTGAAGCA
 6951 TTTATCAGGG TTATTGTCTC ATGAGCGGAT ACATATTTGA ATGTATTAG
 7001 AAAAATAAAC AAATAGGGGT TCCGCGCACA TTTCCCGAA AAGTGCCACC
 7051 TGACGTCTAA GAAACCATTA TTATCATGAC ATTAACCTAT AAAAATAGGC
 7101 GTATCACGAG GCCCTTCGT CTCGCGCGTT TCGGTGATGA CGGTGAAAAC
 7151 CTCTGACACA TGCAGCTCCC GGAGACGGTC ACAGCTTGTC TGTAAGCGGA
 7201 TGCCGGGAGC AGACAAGCCC GTCAGGGCGC GTCAGCGGGT GTTGGCGGGT
 7251 GTCGGGGCTG GCTTAACTAT GCGGCATCAG AGCAGATTGT ACTGAGAGTG
 7301 CACCATATGC GGTGTGAAAT ACCGCACAGA TGCCTAAGGA GAAAATACCG
 7351 CATCAGGCCGC CATTGCCAT TCAGGCTGCG CAACTGTTGG GAAGGGCGAT
 7401 CGGTGCGGGC CTCTTCGCTA TTACGCCAGC TGGCGAAAGG GGGATGTGCT
 7451 GCAAGGCGAT TAAAGTTGGGT AACGCCAGGG TTTTCCCAGT CACGACGTTG
 7501 TAAAACGACG GCCAGTGAAT TTGACACCTGC AGTCGACAGA AGCCTTACGT
 7551 GACAGCTGGC GAAGAACCAT GGCCAGCTGG TGACAAGCCA AAACAGCTCT
 7601 GGCTCGAAA ACATGTTCCC TTGGCTGCTT TCCACTTCCC CTTGTGCTTT
 7651 GTTTACTTGT GTCAGCTGGT TGGCTCCCTA GGTATGAGCT CATGCTTGGC
 7701 TGGCAGCCAT CCAGTTTAG CCAGCTCTGC TTTGTTTACT TGTGTCAGCT
 7751 GGTTGGCTCC CTAGGTATGA GCTCATGCTT GGCTGGCAGC CATCCAGTTT
 7801 TAGCCAGCTC CTCCCTACCT TCCCTTTTT TTATATATAC AGGAGGCCGA
 7851 GGCCGGCTCC GCCTCCAAGC TTACTCAGAA GTAGTAAGGG CGTGGAGGCT
 7901 TTTTAGGAGG CCAGGGAAAT TCCCTTGTTT TTCCCTTTT TGCAGTAATT
 7951 TTTTGCTGCA AAAAGCTAA

JCVPlong-gdnf Length: 6971 June 8, 1999 16:42 Type: N Check: 3588

1 GCTAGCGATT TAGGTGACAC TATAGAATAG ATCCCCATGA AGTTATGGGA
 51 TGTCTGGCT GTCTGCCTGG TGCTGCTCCA CACCGCGTCC GCCTTCCCGC
 101 TGCCCGCCGG TAAGAGGCCT CCCGAGGCAGC CCGCCGAAGA CCGCTCCCTC
 151 GGCCGCGCGC GCGCCGCCCT CGCGCTGAGC AGTGAACCAA ATATGCCAGA
 201 GGATTATCCT GATCAGTTG ATGATGTCAT GGATTTTATT CAAGCCACCA
 251 TTAAAAGACT GAAAAGGTC ACGATAAAC AAATGGCAGT GCTTCTAGA
 301 AGAGAGCGGA ATCGGCAGGC TGCAGCTGCC AACCCAGAGA ATTCCAGAGG
 351 AAAAGGTCGG AGAGGCCAGA GGGGCAAAAA CGGGGGTTGT GTCTTAACG
 401 CAATACATTT AAATGTCACT GACTTGGTC TGGGCTATGA AACCAAGGAG
 451 GAACTGATT TTAGGTACTG CAGCGGCTCT TGCGATGCAG CTGAGACAAAC
 501 GTACGACAAA ATATTGAAA ACTTATCCAG AAATAGAAGG CTGGTGAGTG
 551 ACAAAAGTAGG GCAGGCATGT TGCAGACCCA TCGCCTTTGA TGATGACCTG
 601 TCGTTTTAG ATGATAACCT GGTTTACCAT ATTCTAAGAA AGCATTCGC
 651 TAAAAGGTGT GGATGTTACT GACTGGTGC CGCGCTTTCC CGACGTTAAA
 701 GGGATGAAAC CACAAGACTT ACCTTCGCTC GGAAGTAAAAA CGACAAACAC
 751 ACACAGTTT GCCCCTTTTC ATGAGAAATG GGACGCTCTGC GCACGAAACG
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 951 CGAGTGTAG TAGCGGTACT GCTGTCCTCG AGCGGAGCAT GTTGGCGTG
 1001 GGAACACCTC CTTGGTAACA AGGACCCACG GGGCCGAAAG CCATGTCCTA
 1051 ACGGACCCAA CATGTGTGCA ACCCCACGAC GGCACTTTA CTGTGAAACC
 1101 CACTTCAAGG TGACATTGAT ACTGGTACTC AAACACTGGT GACAGGCTAA
 1151 GGATGCCCTT CAGGTACCC GAGGTAAACAA GCGACACTCG GGATCTGAGA
 1201 AGGGGACTGG GACTTCTTA AAGTGCCTAG TTAAAAAAGC TTCTACGCC
 1251 GAATAGGTGA CCGGAGGCCG GCACCTTTCC TTATATAACC ACTGAACACA
 1301 TGGAAGACGC CAAAAACATA AAGAAAGGCC CGGGGCCATT CTATCCCTCA
 1351 GAGGATGGAA CCGCTGGAGA GCAACTGCAT AAGGCTATGA AGAGATACGC
 1401 CCTGGTTCTC GGAAACAATTG CTTTACAGA TGCACATATC GAGGTGAACA
 1451 TCACGTACGC GGAATACTTC GAAATGTCCG TTCGGTTGGC AGAAGCTATG
 1501 AAACGATATG GGCTGAAATAC AAATCACAGA ATCGTCGTAT GCAGTAAAAA
 1551 CTCTCTCAA TTCTTATGC CGGTGTTGG CGCGTTATTG ATCGGAGTTG
 1601 CAGTTGCGCC CGCGAACGAC ATTATAATG AACGTGAATT GCTCAACAGT
 1651 ATGAACATTT CGCAGCCTAC CGTAGTGTGTT GTTCCAAAAA AGGGGTTGCA
 1701 AAAAATTGG AACGTGCAAA AAAAATTACCA AATAATCCAG AAAATTATTA
 1751 TCATGGATTG TAAAACGGAT TACCAAGGGAT TTCACTGCAT GTACACGTT
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 1951 AGATTCTCGC ATGCCAGAGA TCCTATTGTT GGCAATCAAAC TCATTCCCGA
 2001 TACTGCGATT TTAAGTGTG TTCCATTCCA TCACGGTTT GGAATGTTA
 2051 CTACACTCGG ATATTTGATA TGTGGATTC GAGTCGTCTT AATGTATAGA
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 2151 TGCGTTGCTA GTACCAACCC TATTTTCTT CTTCGCCAAA AGCACTCTGA
 2201 TTGACAAATA CGATTACATCT AATTACACG AAATGCTTC TGGGGCGCA
 2251 CCTCTTCGA AAGAAGTCGG GGAAGCGGT GCAAAACGCT TCCATCTTCC
 2301 AGGGATACGA CAAGGATATG GGCTCACTGA GACTACATCA GCTATTCTGA
 2351 TTACACCGA GGGGGATGAT AAACCGGGCG CGGTGGTAA AGTTGTTCCA
 2401 TTTTTGAAAG CGAAGGTTGT GGATCTGGAT ACCGGGAAAAA CGCTGGCGT
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 2501 ATGAAACCAA TCCCGAAGCG ACCAACGCT TGATTGACAA GGATGGATGG
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 2601 AGTTGACCGC TTGAAGTCTT TAATTAAATA CAAAGGATAT CAGGTGGCCC
 2651 CCGCTGAATT GGAATCGATA TTGTTACAAC ACCCCAAACAT CTTCGACGCG
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 2951 AAAATGTAAC TGTATTCAAGC GATGACGAA TTCTTAGCTA TTGTAATGAC
 3001 TCTAGAGGAT CTTGTGAAG GAACCTTACT TCTGTGGTGT GACATAATTG
 3051 GACAAACTAC CTACAGAGAT TTAAAGCTCT AAGGTAATAA TAAAATTGTT
 3101 AAGTGTATAA TGTGTTAAC TACTGATTCT AATTGTTGT GTATTTAGA
 3151 TTCCAACCTA TGGAAGCTGAT GAATGGGAGC AGTGGTGGAA TGCCTTTAAT
 3201 GAGGAAAACC TGTTTGCTC AGAAGAAATG CCATCTAGTG ATGATGAGGC

- 27/56 -

3251 TACTGCTGAC TCTCAACATT CTACTCCTCC AAAAAAGAAG AGAAAGGTAG
 3301 AAGACCCCAA GGACTTCCCT TCAGAATTGC TAAGTTTTT GAGTCATGCT
 3351 GTGTTTAGTA ATAGAACTCT TGCTTGCTTT GCTATTACA CCACAAAGGA
 3401 AAAAGCTGCA CTGCTATAACA AGAAAATTAT GGAAAATAT TCTGTAACCT
 3451 TTATAAGTAG GCATAACAGT TATAATCATA ACATACTGTT TTTCTTACT
 3501 CCACACAGGC ATAGAGTGTG TGCTTATAAT AACTATGCTC AAAAATTGTG
 3551 TACCTTCTAGG TTTTTAATTG GTAAAGGGGT TAATAAGGAA TATTGATGT
 3601 ATAGTGCCTT GACTAGAGAT CATAATCAGC CATACCACAT TTGTAGAGGT
 3651 TTTACTTGCT TTAAAAAAACC TCCACACCT CCCCCGTGAACT CGAAACATA
 3701 AAATGAATGC AATTGTTGTT GTTAACTTGT TTATTGCGAG TTATAATGGT
 3751 TACAAATAAA GCAATAGCAT CACAAATTTC ACAAAATAAG CATTTTTTC
 3801 ACTGCATTCT AGTTGTTGTT TGTCCTAACT CATCAATGTA TCTTATCATG
 3851 TCTGGATCCC CGGGTCTCTA TAGTGAGTCG TATTAGCTG GCGTAATCAT
 3901 GGTCTAGCT GTTCTCTGTG TGAAATTGTT ATCCGCTCAC AATTCCACAC
 3951 AACATACGAG CGGGAAAGCAT AAAGTGTAAA GCCTGGGTG CCTAATGAGT
 4001 GAGCTAACTC ACATTAATTG CGTTCGCTC ACTGCCCCGT TTCCAGTCGG
 4051 GAAACCTGTC GTGCCAGCTG CATAATGAA TCAGGCAACG CGCGGGGAGA
 4101 GCGGGTTTGC GTATTGGCGC CTCTTCCGCT TCCTCGCTCA CTGACTCGCT
 4151 GCGCTCGGTG CTTCGGCTGC GGGGAGCGGT ATCAGCTCAC TCAAAGGCGG
 4201 TAATACGGTT ATCCACAGAA TCAGGGGATA ACGCAGGAAA GAACATGTGA
 4251 GCAAAAGGCC AGCAAAAGGC CAGGAACCGT AAAAAGGCCG CGTTGCTGGC
 4301 GTTTTCCAT AGGCTCCGCC CCCCCGACGA GCATCACAAA AATCGACGCT
 4351 CAAGTCAGAG GTGGCGAAC CCGACAGGAC TATAAAGATA CCAGGGCTTT
 4401 CCCCTGGAA GCTCCCTCGT GCGCTCTCT GTTCCGACCC TGCCGCTTAC
 4451 CGATACCTG TCCGCCTTC TCCCTCGGG AAGCGTGGCG CTTTCTCAAT
 4501 GCTCACGCTG TAGGTATCTC AGTTGGTGT AGGTCGTTG CTCCAAGCTG
 4551 GGCTGTGTGC AGCAACCCCC CGTTCAAGCC GACCGCTGCG CCTTATCCGG
 4601 TAATATCGT CTTGAGTCCA ATCCCGTAAG ACACGACTTA TCGCCACTGG
 4651 CAGCAGCCAC TGGTAACAGG ATTACGAGAG CGAGGTATGT AGGCAGTGT
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 4751 ATTGGTATC TGCGCTCTGC TGAAGCCAGT TACCTCGGA AAAAGAGTTG
 4801 GTAGCTCTGC ATCCGGAAA CAAACCACCG CTGGTAGCGG TGGTTTTTT
 4851 GTTGCAAGC AGCAGATTAC GCGCAGAAAA AAAGGATCTC AAGAAGATCC
 4901 TTGATCTTT TCTACGGGGT CTGACGCTCA GTGGAACGAA AACTCACGTT
 4951 AAGGGATTTT GGTCATGAGA TTATCAAAA GGATCTTCAC CTAGATCCTT
 5001 TTAAATTAAA AATGAAGTTT TAAATCAATC TAAAGTATAT ATGAGTAAC
 5051 TTGGTCTGAC AGTTACCAAT GCTTAATCAG TGAGGCACCT ATCTCAGCGA
 5101 TCTGTCTATT TCCTTCATCC ATAGTTGCCT GACTCCCCGT CGTGTAGATA
 5151 ACTACGATAC GGGAGGGCTT ACCATCTGGC CCCAGTGTG CAATGATACC
 5201 CGCAGACCCA CGCTCACCCG CTCCAGATT ATCAGCAATA AACCAAGCCAG
 5251 CCGGAAGGGC CGAGCGCAGA AGTGGCTCG CAACTTTATC CGCCTCCATC
 5301 CAGTCTATTAA ATTGTTGCCG GGAAGCTAGA TAAAGTAGTT CGCCAGTTAA
 5351 TAGTTGCGC AACGTTGTTG CCATTGCTAC AGGCATCGTG GTGTACCGCT
 5401 CGTCCTTGG TATGGCTTC TTCAGCTCC GTCCCCAACG ATCAAGGCGA
 5451 GTTACATGAT CCCCCATGTT GTGAAAAAAA GCGGTTAGCT CCTTCGGTCC
 5501 TCCGATCGTT GTCAGAACTA AGTTGGCCGC AGTGTATCA CTCATGGTTA
 5551 TGGCAGCACT GCATAATTCTT CTTACTGTCA TGCCATCCGT AAGATGCTTT
 5601 TCTGTGACTG GTGAGTACTC AACCAAGTCA TTCTGAGAAT AGTGTATGCG
 5651 GCGACCGAGT TGCTCTGCC CGGCCTCAAT ACGGGATAAT ACCGGCCAC
 5701 ATAGCAGAAC TTAAAAGTG CTCATCATTG GAAAACGTT TCAGGGCGA
 5751 AAACCTCTCAA GGATCTTACCC GCTGTTGAGA TCCAGTTGCA TGTAAACCCAC
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 5851 GGTGAGCAAA AACAGGAAGG CAAAATGCCG CAAAAAAGGG AATAAGGGCG
 5901 ACACGGAAAT GTTGAATACT CATACTCTC CTTTTCAAT ATTATTGAAG
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 6001 AGAAAATATA ACAAAATAGGG GTTCCGCGCA CATTTCGGG AAAAGTGCCA
 6051 CCTGACGCTC AAGAAAACCAT TATTATCATG ACATTAACCT AAAAAATAG
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 6151 ACCTCTGACA CATGCAGCTC CGGGAGACGG TCACAGCTTG TCTGTAAGCG
 6201 GATGCCGGGA CGACAGAACG CCGTCAGGGC GCGTCAGCGG GTGTTGGCGG
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 6301 TCCACCATAT GGGGTGTGAA ATACCCGACA GATGCGTAAG GAGAAAATAC
 6351 CGCATCAGGC GCCATTGCC ATTCAAGCTG CGCAACTGTT GGGAAAGGGCG
 6401 ATCGGTGCGG GCCTCTTCGC TATTACGCCA GCTGGCGAAA GGGGGATGTG
 6451 CTGCAAGGGC ATTAAGTGG GTAACGCCAG GTTTTCCCA GTCACGACGT
 6501 TGTAAACGA CGGCCAGTGA ATTCGACCT GCAGTCGACA GAAGCCTTAC
 6551 GTGACAGCTG CGGAAGAACC ATGCCAGCT GGTGACAAGC CAAAACAGCT

- 28/56 -

6601 CTGGCTCGCA AAACATGTC CCTTGGCTGC TTTCCACTTC CCCCTGTGCT
6651 TTGTTTACTT GTGTCAGCTG GTTGGCTCCC TAGGTATGAG CTCATGCTTG
6701 GCTGGCAGCC ATCCAGTTT AGCCAGCTCT GCTTTGTTTA CTTGTGTCAG
6751 CTGGTTGGCT CCCTAGGTAT GAGCTCATGC TTGGCTGGCA GCCATCCAGT
6801 TTTAGCCAGC TCCTCCCTAC CTTCCCTTT TTTTATATAT ACAGGAGGCC
6851 GAGGCCGCCT CCGCCTCAA GCTTACTCAG AAGTAGTAAG GGCGTGGAGG
6901 CTTTTTAGGA GGCCAGGGAA ATTCCCTTGT TTTCCCTTT TTTGCAGTAA
6951 TTTTTGCTG CAAAAAGCTA A

Fig. 19

pD12JCVshort-hCNTF

Length: 7558

1 GCTAGCGATT TAGGTGACAC TATAGAATCt cgacnnGTCA CCCCTAGAGT
 51 CGAGCTGTGA CGGTCTTAC AATGAAATGC ANCTGGGTTA TCTTCITCCT
 101 GATGGCAGGG GTTACAGGTA AGGGGCTCCC AAGTCCAAA CTTGAGGGTC
 151 CATAAACTCT GTGACAGTGG CAATCACTTT GCCTTCTTT CTACAGGGGT
 201 GAATTGGCT TTCACAGAGC ATTCAACGCT GACCCCTCAC CGTCGGGACC
 251 TCTGTAGCCG CTCTATCTGG CTAGCAAGGA AGATTGTTTC AGACCTTGAC
 301 TGCTCTTACG GAATCCTATG TAAGTTGCCT ATTTGCTGT TATCTGTTT
 351 CCCITCATCT TTTTGATCC AGCAACTTAC CATCACGCAT CAGCTCCATT
 401 ACCAATTGTG AAAGCTCTAA TCATATAGTC ATTCAATAG GTTATTTGAC
 451 ATGGGCCCTT CCCTTGAGGA AACCCATGTG ACTTTATTTT CTTCCCTCTGG
 501 GCTGTTAGG AGATGAAGTT ACTTGAATGA GAAAATATAT ATGGAGTTCT
 551 AGAAAGGATT GGTTTATATG TCTTGGAGGC TATTTCAAAA TTTATTTGGC
 601 CATATATTCT GAATACTACC TAGAACAGAT TAGCCATGGG CCCTNTGGGT
 651 TTTTCATAAG CCATTGTTCT GAANTTTTT AGCTTGTAA ATGAAAGGTT
 701 TATGGGATAG GAAGAGTNC ATGAACGTGG GAGGAATTIG TAAATCCTAC
 751 CAATTNTNC TATATAGCAT TAGCCCCAC CTTTANTAT TCTGCATCAA
 801 AAGTAAGATT GTGTCTAAG AGAAAGGTNA GCTATCAAAA GGACTCCTAT
 851 AANATTCTT GGAAACTTNT GGAANTGTCA AATTNTTTG AGCTAATTNT
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 951 TTTNCCCCC TNNNGANAAT GCTTGGGGGA AAAAACCTNC CAACCCNTT
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 1101 TTTTGGGGNN GNGCNCCNAC NGGGGGNAA AANGGAAAT TTCNTCANAA
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 1201 acctggactc tgccgatgg atgccagtgg caagcactga tcagtggagt
 1251 gagctgaccg aggcagagcg actccaagag aaccttcaag cttatcgat

- 30/56 -

1301 cttccatgtt ttgttggcca ggctcttaga agaccagcag gtgcattta
 1351 ccccaaccga aggtgacttc catcaagcta tacataccct tcttctcaa
 1401 gtcgctgcct ttgcataccca gatagaggag ttaatgatac tcctggaaa
 1451 caagatcccc cgcaatgagg ctgatggat gcctattaaat gttggagatg
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 1601 tcagactggg atcccagcac gtgggagcca ttatattgct aacaacaaga
 1651 aaatgtagnn nnngcggccT GCGCCGTCTT TCCCGACGTT AAAGGGATGA
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 1751 TTTGCCCGTT TTCATGAGAA ATGGGACGTC TGCGCACGAA ACGCGCCGTC
 1801 GCTTGAGGAG GACTTGTACA AACACGATCT ATGCAGGTTT CCCCCAACTGA
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 1951 TAGTAGCGGT ACTGCTGTCT CGTAGCGGAG CATGTTGGCC GTGGGAACAC
 2001 CTCCTTGGTA ACAAGGACCC ACGGGGCCGA AAGCCATGTC CTAACGGACC
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 2601 GCCCGCGAAC GACATTATA ATGAACGTGA ATTGCTAAC AGTATGAACA
 2651 TTTCGCAAGCC TACCGTAGTG TTTGTTCCA AAAAGGGTT GCAAAAAATT

- 31/56 -

2701 TTGAACGTGC AAAAAAAATT ACCAATAATC CAGAAAATTA TTATCATGGA
 2751 TTCTAAAACG GATTACCAAGG GATTTCAGTC GATGTACACG TTCTGCACAT
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 3901 GAGATCCTCA TAAAGGCCAA GAAGGGCGGA AAGTCCAAAT TGAAAATGT
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 4001 GATCTTGTG AAGGAACTT ACTTCTGTGG TGTGACATAA TTGGACAAAC
 4051 TACCTACAGA GATTTAAAGC TCTAAGGTAA ATATAAAATT TTTAAGTGTA

- 32/56 -

4101 TAATGTGTTA AACTACTGAT TCTAATTGTT TGTGTATTTT AGATTCCAAC
 4151 CTATGGAAC GATGAATGGG ACCAGTGGTG GAATGCCCTT AATGAGGAAA
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 4251 GACTCTCAAC ATTCTACTCC TCCAAAAAAG AAGAGAAAGG TAGAAGACCC
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 4901 GCTGTTCCCT GTGTGAAATT GTTATCCGCT CACAATTCCA CACAACATAC
 4951 GAGCCGGAAG CATAAAAGTGT AAAGCCTGGG GTGCCTAATG AGTGAGCTAA
 5001 CTCACATTAA TTGCGTIGCG CTCACTGCC C GCTTTCCAGT CGGGAAACCT
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 5101 TCGTATTGG GCGCTCTCC GCTTCCTCGC TCACTGACTC GCTGCGCTCG
 5151 GTCGTTCCGC TGCGGCGAGC GGTATCAGCT CACTCAAAGG CGGTAATACG
 5201 GTTATCCACA GAATCAGGGG ATAACGCAGG AAAGAACATG TGAGCAAAAG
 5251 GCCAGCAAAA GGCCAGGAAC CGTAAAAAAGG CCGCGTTGCT GGCGTTTTC
 5301 CATAGGCTCC GCCCCCCCTGA CGAGCATCAC AAAAATCGAC GCTCAAGTCA
 5351 GAGGTGGCGA AACCCGACAG GACTATAAAG ATACCAGGGG TTTCCCCCTG
 5401 GAAGCTCCCT CGTGCCTCT CCTGTTCCGA CCCTGCCGCT TACCGGATAC
 5451 CTGTCCGCCT TTCTCCCTTC GGGAAAGCGTG GCGCTTTCTC AATGCTCACG

- 33/56 -

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 5551 TGCACGAACC CCCCAGTCAG CCCCACCGCT GCGCCTTATC CGGTAACATAT
 5601 CGTCTTGAGT CCAACCCGGT AAGACACGAC TTATGCCAC TGGCAGCAGC
 5651 CACTGGTAAC AGGATTAGCA GAGCGAGGTA TGTAGGCGGT GCTACAGAGT
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 6201 CCACGCTCAC CGGCTCCAGA TTTATCAGCA ATAAACCCAGC CAGCCGGAAAG
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 6301 TTAATTGTTG CCGGGAAAGCT AGAGTAAGTA GTTCGCCAGT TAATAGTTG
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 6501 GTTGTCAAGAA GTAAGTTGGC CGCAGTGTAA TCACATCGG TTATGGCAGC
 6551 ACTGCATAAT TCTCTTACTG TCATGCCATC CGTAAGATGC TTTTCTGTGA
 6601 CTGGTGAGTA CTCAACCAAG TCATTCTGAG AATAGTGTAT GCGGCGACCG
 6651 AGTTGCTCTT GCCCGGCGTC AATACGGGAT AATACCGCGC CACATAGCAG
 6701 AACTTTAAA GTGCTCATCA TTGGAAAACG TTCTCGGGG CGAAAACCTCT
 6751 CAAGGATCTT ACCGCTGTTG AGATCCAGTT CGATGTAACC CACTCGTGCA
 6801 CCCAACTGAT CTTCAGCATC TTTTACTTTTC ACCAGCGTTT CTGGGTGAGC
 6851 AAAAAACAGGA AGGCAAAATG CCGCAAAAAA GGGAAATAAGG GCGACACCGA

- 34/56 -

6901 AATGTTGAAT ACTCATACTC TTCCCTTTTC AATATTATTG AAGCATTAT
6951 CAGGGTTATT GTCTCATGAG CGGATACATA TTTGAATGTA TTTAGAAAAA
7001 TAAACAAATA GGGGTTCCGC GCACATTCC CCGAAAAGTG CCACCTGACG
7051 TCTAAGAAAC CATTATTATC ATGACATTAA CCTATAAAA TAGGCGTATC
7101 ACGAGGCCCT TTCTGTCTCGC GCGTTTCGGT GATGACGGTG AAAACCTCTG
7151 ACACATGCAG CTCCCGGAGA CGGTACAGC TTGTCTGTAA GCGGATGCCG
7201 GGAGCAGACA AGCCCGTCAG GGCGCGTCAG CGGGTGTGG CGGGTGTGG
7251 GGCTGGCTTA ACTATGCGGC ATCAGAGCAG ATTGTACTGA GAGTGCACCA
7301 TATGCGGTGT GAAATACCGC ACAGATGCGT AAGGAGAAA TACCGCATCA
7351 GGCGCCATTC GCCATTCAAG CTGCGCAACT GTTGGGAAGG GCGATCGGTG
7401 CGGGCCTCTT CGCTATTACG CCAGCTGGCG AAAGGGGGAT GTGCTGCAAG
7451 GCGATTAAGT TGGGTAACGC CAGGGTTTTC CCAGTCACGA CGTTGTAAA
7501 CGACGGCCAG TGAATTCGA CCTGCAGtgcg actttttta tatatacagg
7551 aggccgag

JCVPshort-hgdnf Length: 6565 June 8, 1999 16:57 Type: N Check:

1 GCTAGCGATT TAGGTGACAC TATAGAACAT ATCCCCATGA AGTTATGGGA
 51 TGTCGTGGCT GTCTGCCTGG TGCTGCTCCA CACCGCGTCC GCCTTCCCGC
 101 TGCCCGCCGG TAAGAGGCCT CCCGAGGCAG CCGCCGAAGA CCCTCCCTC
 151 GCGCCGCCGCC GCGGCCCTT CGCGCTGAGC AGTGACTCAA ATATGCCAGA
 201 GGATTATCCT GATCAGTTCG ATGATGTCAT GGATTTATT CAAGCCACCA
 251 TTAAAAGACT GAAAAGGTC AAGATAAAC AAATGGCAGT GCTTCCTAGA
 301 AGAGAGCGGA ATCGGCAGGC TGCAGCTGCC AACCCAGAGA ATTCCAGAGG
 351 AAAAGGTCGG AGAGGCCAGA GGGGCAAAA CGGGGGTTGT GTCTTAACCTG
 401 CAATACATT AAATGTCAGT GACTTGGTC TGGGCTATGA AACCAAGGAG
 451 GAACTGATTT TTAGGTACTG CAGCGGCTCT TGCGATGCG AGTGGAGACAC
 501 GTACGACAAA ATATTGAAAA ACTTATCCAG AAATAGAAGG CTGGTGAGTG
 551 ACAAAAGTAGG GCAGGCATGT TGCAGACCCA TCGCCTTGA TGATGACCTG
 601 TCGTTTTAG ATGATAACCT GGTTCACCAT ATTCTAAGAA AGCATTCCGC
 651 TAAAAGGTTG GGATGTATCT GACTTGGTC CCGTCTTCC CGACGTTAAA
 701 GGGATGAAAC CACAAGACTT ACCTTCGCTC GGAAGTAAA CGACAAACAC
 751 ACACAGTTT GCGCGTTTC ATGAGAAATG GGACGTCG GCACGAAACG
 801 CGCCGTCGCT TGAGGAGGAC TTGTCACAAAC AGCATCTATG CAGGTTTCCC
 851 CAACTGACAC AAACCGTCA ACTTGAAACT CCGCCTGGTC TTTCCAGGTC
 901 TAGAGGGTA ACATTGGTA CTGTGTTTGA CTCCACGTC GATCCACTAG
 951 CGAGTGTAG TAGCGGTACT GCTGTCTCGT AGCGGAGCAT GTTGGCCGTG
 1001 GGAACACCTC CTTGGTAACA AGGACCCACG GGGCGAAAG CCATGTCCTA
 1051 ACGGACCCAA CATGTCGCA ACCCCAGAC GGCAGCTTA CTGTGAAACC
 1101 CACTTCAAGG TGACATTGAT ACTGGTACTC AAACACTGGT GACAGGCTAA
 1151 GGATGCCCTT CAGGTACCCC GAGGTAACAA CGGACACTCG GGATCTGAGA
 1201 AGGGGACTGG GACTTCCTTA AAGTGGCCAG TTTAAAAAGC TTCTACGCC
 1251 GAATAGGTGA CGGGAGGCCG GCACCTTTC TTTTATAACC ACTGAACACA
 1301 TCGAAGACGC CAAAACATA AAGAAAGGCC CGGGCCATT CTATCCTCTA
 1351 GAGGATGGAA CCGCTGGAGA GCAACTGCAT AAGGCTATGA AGAGATAACG
 1401 CCTGGTTCCCT GGAACAAATTG CTTTTACAGA TGACATATC GAGGTGAACA
 1451 TCACGTACGC GGAATACTTC GAAATGTCCG TTGGTTGGC AGAAGCTATG
 1501 AAACGATATG GGCTGAATAC AAATCACAGA ATCGTCGAT GCACTGAAAAA
 1551 CTCTCTCAA TTCTTTATGC CGGTGTTGG CGCGTTATTG ATCGGAGTTG
 1601 CAGTTGCGCA CGCGAACAC ATTATAATG AACGTGAATT GCTCAACAGT
 1651 ATGAACATT CGCAGCCTAC CGTAGTGTGTT GTTTCCAAA AGGGGTTGCA
 1701 AAAAATTGG AACGTGCAA AAAAATTAC AATAATCCAG AAAATTATTA
 1751 TCATGGATTTC TAAAACGGAT TACCAAGGGAT TTCACTGCA GTACACGTT
 1801 GTCACATCTC ATCTACCTCC CGGTTTAAT GAATACGATT TTGTACCAAG
 1851 GTCCTTTGAT CGTGACAAAA CAATTGCACT GATAATGAAT TCCCTCTGGAT
 1901 CTACTGGTT ACCTAAAGGT GTGGCCCTTC CGCATAGAAC TGCGCTGTC
 1951 AGATTCTCGC ATGCCAGAGA TCCTATTTC GGCAATCAAA TCATCCGGA
 2001 TACTGCGATT TTAAGTGTG TTCCATTCCA TCACGGTTTT GGAATGTTA
 2051 CTACACTCGG ATATTTGATA TGTGGATTTC GAGTCGTCTT AATGTATAGA
 2101 TTTGAAGAAG AGCTGTTTT ACGATCCCTT CAGGATTACA AAATTCAAAG
 2151 TGCCTGCTA GTACCAACCC TATTTTCATT CTTCGCCAAA AGCACTCTGA
 2201 TTGACAAATA CGATTTATCT AATTACACG AAATTGCTTC TGGGGCGCA
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 2301 AGGGATACGA CAAGGATATG GGCTCACTGA GACTACATCA GCTATTCTGA
 2351 TTACACCCGA GGGGGATGAT AAACCGGGCG CGGTGGTAA AGTTGGTCCA
 2401 TTTTTGAG CGAAGGTTGT GGATCTGGAT ACCGGGAAAAA CGCTGGCGT
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 2551 CTACATTCTG GAGACATAGC TTACTGGGAC GAAGACGAAC ACTTCTTCAT
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 2651 CCGCTGAATT GGAATCGATA TTGTTACAC ACCCCAAACAT TTTCGACGCG
 2701 GGCCTGGCAG GTCTTCCCGA CGATGACGCC GGTGAACCTC CGGCCGCCGT
 2751 TGTTGTTTG GAGCACGGAA AGACGATGAC GGGAAAAGAG ATCGTGGATT
 2801 ACGTGCGCAG TCAAGTAACA ACCCGGAAAAA AGTTGCGCGG AGGAGTTGT
 2851 TTTGTTGGACG AAGTACCGAA AGGTCTTACG GGAAAACCTCG ACGCAAGAAA
 2901 AATCAGAGAG ATCCTCATAA AGGCCAGAA CGCGGAAAG TCCAAATTGT
 2951 AAAATGTAAC TGTATTCTCAGC GATGACGAAA TTCTTAGCTA TTGTAATGAC
 3001 TCTAGAGGAT CTTTGTGAAG GAACCTTACT TCTGTGGTGT GACATAATTG
 3051 GACAAACTAC CTACAGAGAT TTAAAGCTCT AAGGTAAAATA TAAAATTGG
 3101 AAGTGTATAA TGTGTTAAAC TACTGATTCT AATGTTTGT GTATTTAGA
 3151 TTCCAAACCTA TGGAACTGAT GAATGGGAGC AGTGGTGGAA TGCCCTTAAT

3201 GAGGAAAACC TGTTTGCTC AGAAGAAATG CCATCTAGTG ATGATGAGGC
 3251 TACTGCTGAC TCTCAACATT CTACTCCTCC AAAAAAGAAG AGAAAGGTAG
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 3351 GTGTTTAGTA ATAGAACTCT TGCTTGCTT GCTATTACA CCACAAAGGA
 3401 AAAAGCTGCA CTGCTATACA AGAAAATTAT GGAAAAATAT TCTGTAACCT
 3451 TTATAAGTAG GCATAACAGT TATAATCATA ACATACTGTT TTTCTTACT
 3501 CCACACAGGC ATAGAGTGTG TGCTTAAAT AACTATGCTC AAAAATTGTTG
 3551 TACCTTTAGC TTTTTAATT GTAAAGGGGT TAATAAGGAA TATTGATGT
 3601 ATAGTGCCTT GACTAGAGAT CATAATCAGC CATACCACAT TTGTAGAGGT
 3651 TTACTTGCT TTAAAAAACC TCCCACACCT CCCCCCTGAAC CTGAAACATA
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 3851 TCTGGATCCC CGGGCTCTA TAGTGAGTCG TATTAGCTG GCGTAATCAT
 3901 GGTCACTAGCT GTTCCCTGTG TGAAATTGTT ATCCGCTCAC AATTCCACAC
 3951 AACATACGAG CGGGAAGCAT AAAGTGTAA GCCTGGGGTG CCTAATGAGT
 4001 GAGCTAACTC ACATTAATTG CGTTGCGCTC ACTGCCCCGCT TTCCAGTCGG
 4051 GAAACCTGTC GTGCCAGCTG CATTAAATGAA TCGGCCAACG CGCAGGGAGA
 4101 GCGGGTTGTC GTATTGGCG CTCTTCCGCT TCCTCGCTCA CTGACTCGCT
 4151 GCGCTCGGTC GTTCCGGTGC GGCGAGCGGT ATCAGCTCAC TCAAAGCGG
 4201 TAATACGGTT ATCCACAGAA TCAGGGGATA ACAGCAGGAAA GAACATGTGA
 4251 GCAAAAGGCC AGCAAAAGGC CAGGAACCGT AAAAAGGCCG CGTTGCTGGC
 4301 GTTTTCCAT AGGCTCCGCC CCCCTGACGA GCATCACAAA AATCGACGCT
 4351 CAAGTCAGAG GTGGCGAAAC CCGACAGGAC TATAAAGATA CCAGGGCTT
 4401 CCCCTGGAA GCTCCCTCGT GCGCTCTCCT GTTCCGACCC TGCCGTTAC
 4451 CGGATACCTG TCCGCTTTC TCCCTCGGG AAGCGTGGCG CTTTCTCAAT
 4501 GCTCACGCTG TAGGTATCTC AGTTCGGTGT AGGTGTTTCG CTCCAAGCTG
 4551 GGCTGTGTGC ACGAACCCCC CGTTCAAGCCC GACCGCTGCG CCTTATCCGG
 4601 TAACTATCGT CTTGAGTCG ACCCGGTAAG ACACGACTTA TCGCCACTGG
 4651 CAGCAGCCAC TGGTAACAGG ATTACAGAG CGAGGTATGT AGGCGGTGCT
 4701 ACAGAGTTCT TGAAGTGGTG GCCTAACTAC GGCTACACTA GAAGGACAGT
 4751 ATTGGTATC TGCGCTCTGC TGAAGCCAGT TACCTTCGGA AAAAGAGTTG
 4801 GTAGCTCTTG ATCCGGAAA CAAACCACCG CTGGTAGCGG TGGTTTTTT
 4851 GTTGCAGCAGC AGCAGATTAC GCGCAGAAAA AAAGGATCTC AAGAAGATCC
 4901 TTTGATCTTT TCTACGGGGT CTGACGCTCA GTGGAACGAA AACTCACGTT
 4951 AAGGGATTTT GGTCAATGAGA TTATCAAAA GGATCTTCAC CTAGATCCTT
 5001 TAAATTTAA AATGAAGTT TAAATCAATC TAAAGTATAT ATGAGTAAAC
 5051 TTGGTCTGAC AGTTACCAAT GCTTAATCAG TGAGGCACCT ATCTCAGCGA
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 5151 ACTACGATAC GGGAGGGCTT ACCATCTGGC CCCAGTGTG CAATGATACC
 5201 GCGAGACCCA CGCTCACCGG CTCCAGATT ATCAGCAATA AACCAAGCCAG
 5251 CCGGAAGGGC CGAGCGCAGA AGTGGCTCG CAACTTTATC CGCCTCCATC
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 5401 CGTCGTTGG TATGGCTTC TTACGCTCCG GTTCCCAACG ATCAAGGCGA
 5451 GTTACATGAT CCCCCATGTT GTGCAAAAAA GCGGTTAGCT CTTTCGGTCC
 5501 TCCGATCGTT GTCAGAAGTA AGTTGGCCGC AGTGTATCA CTCATGGTTA
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 5751 AAAACTCTCAA GGATCTTAC GCTGTTGAGA TCCAGTTCGA TGTAACCCAC
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 5851 GGTGAGCAAA AACAGGAAGG CAAAATGCCG CAAAAAAAGGG AATAAGGGCG
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 5951 CATTATTCAG GTTATTGTC TCATGAGCGG ATACATATT GAATGTATTT
 6001 AGAAAAATAA ACAAAATAGGG GTTCCGGCA CATTTCCTCG AAAAGTCCCA
 6051 CCTGACGTCT AAGAAACCAT TATTATCATG ACATTAACCT ATAAAAATAG
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 6151 ACCTCTGACA CATGCAGCTC CGGGAGACGG TCACAGCTTG TCTGTAAGCG
 6201 GATGCCGGGA GCAGACAAGC CGTCAGGGC CGTCAGCGG GTGTTGGCGG
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 6301 TGCACCATAT GCGGTGTGAA ATACCGCACA GATGCGTAAG GAGAAAAATAC
 6351 CGCATCAGGC GCCATTGCGC ATTCAAGGCTG CGCAACTGTT GGGAAAGGGCG
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 6451 CTGCAAGGCC ATTAAGTTGG GTAACGCCAG GTTTCCTCA GTCACGACGT
 6501 TGTAAAACGA CGGCCAGTGA ATTCGACCT GCAAGtcact ttttttatat

- 37/56 -

6551 atacaggagg ccgag

(1)

(2)

Fig. 21

pRetroOFF-E6E7 Length: 7840 June 10, 1999 12:21 Type: N Check: 5234

1 TCGAGTTTAC CACTCCCTAT CAGTGATAGA GAAAAGTGA AGTCGAGTT
 51 ACCACTCCCT ATCAGTGATA GAGAAAAGTG AAAGTCGAGT TTACCACTCC
 101 CTATCAGTGA TAGAGAAAAGT GAAAGTCGAG TTACCACTC CCTATCAGT
 151 ATAGAGAAAA GTGAAAAGTCG AGTTTACCAAC TCCCTATCAG TGATAGAGAA
 201 AAGTGAAGT CGAGTTTACCC ACTCCCTATC AGTGATAGAG AAAAGTGAAG
 251 TCGAGTTTAC CACTCCCTAT CAGTGATAGA GAAAAGTGA AGTCGAGCTC
 301 GGTACCCGGG TCGAGTAGGC GTGTACGGTG GGAGGCCTAT ATAAGCAGAG
 351 CTCGTTTAGT GAACCGTCAG ATCGCTGGA GACGCCATCC ACGCTGTTT
 401 GACCTCCATA GAAGACACCG GGACCGATCC AGCCTgcggc cgccagatcta
 451 attcacccgt tagtataaaaaa gcagacattt tattgcaccaa aagagaactg
 501 caatgttca ggacccacag gagcgcacca gaaagtacc acatgtatgc
 551 acagagctgc aaacaactat acatgtatata attttagaaat gtgtgtactg
 601 caagcaacag ttactgcac gtgaggatata tgactttgct tttcgggatt
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 1501 TCCAAGGGCA TCGGTAAACCA GAGGCCCTA GGGGGGGGAG TCCTGGGGGG
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 1951 AATGGCGGCA TACTATCAGT AGTAGGGTGT TCCCTTTCTT CTTTAGCGAC
 2001 TTGATGCTCT TGATCTTCCA ATACGCAACC TAAAGTAAAAA TGCCCCACAG
 2051 CGCTGAGTGC ATATAATGCA TTCTCTAGTG AAAAACCTTG TTGGCATAAAA
 2101 AAGGCTAATT GATTTCTCGAG AGTTTCTACAT TGTTTTCTG TAGGCGTGT
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 2351 CACCTAGCTT CTGGCGAGT TTACGGTTG TTAAACCTTC GATTCCGACC
 2401 TCATTAAGCA GCTCTAATGC GCTGTTAAC ACTTTACTTT TATCTAATCT
 2451 AGACATGGTG GAAAGCTTGC GCAAAAGCT AGGCTCTCAA AAAAGCCTCC
 2501 TCACTACTTC TGGAAATAGCT CAGAGGCCGA GGCGCCCTCG GCCTCTGCAT
 2551 AAATAAAAAA AATTAGTCAG CCATGGGGCG GAGAATGGGC GGAACCTGGGC
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3201 ACCGCTCAAC TCGGCCATGC GCGGGCCGAT CTCGGCGAAC ACCGCCCCCG
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 5251 CAAGAGCAAC TCGGTGCGCG CATAACTAT TCTCAGAATG ACTTGGTTGA
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 5551 ACAACGTTGC GCAAACATT AACTGGCAA CTACTTACTC TAGCTCCCG
 5601 GCAACAATTA ATAGACTGGA TGGAGGCGGA TAAAGTTGCA GGACCACTTC
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 5851 TGGTAACGTG CAGACCAAGT TTACTCATAT ATACTTTAGA TTGATTTGCG
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 6151 CTGGCTTCAG CAGAGCGAG ATACCAAATA CTGTCCTCT AGTGTAGCCG
 6201 TAGTTAGGCC ACCACTCAA GAACTCTGTA GCACCGCCTA CATAACCTCGC
 6251 TCTGCTAATC CTGTTACCGAG TGGCTGCTGC CAGTGGCGAT AAGTCGTGTC
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 6351 GGCTGAACGG GGGGTTCGTG CACACAGCCC AGCTGGAGC GAAACGACCTA
 6401 CACCGAACTG AGATACCTAC AGCGTGTGAGCT ATGAGAAAGC GCAACGCTTC
 6451 CCGAAGGGAG AAAGGCGGAC AGGTATCCCG TAAGCGGCAG GGTGGAAACA
 6501 GGAGAGCGCA CGAGGGAGCT TCCAGGGGAA AACGCTGGT ATCTTATAG

- 40/56 -

6551 TCCTGTCGGG TTTGCCACC TCTGACTTGA GCGTCGATTT TTGTGATGCT
 6601 CGTCAGGGGG GCGGAGCCTA TGGAAAAACG CCAGCAACGC GGCCTTTTA
 6651 CGGTTCTGG CCTTTGCTG GCCTTTGCT CACATGTTCT TTCTCGCGTT
 6701 ATCCCCCTGAT TCTGTGGATA ACCGTATTAC CGCCTTGAG TGAGCTGATA
 6751 CCGCTCGCCG CAGCCGAACG ACCGAGCGCA GCGAGTCAGT GAGCGAGGAA
 6801 GCGGAAGAGC GCCAATACGC AAACCGCCCT TCCCCGCGCG TTGGCCGATT
 6851 CATTAAATGCA ACTATGGCCA TTTAATGTAA ATACTTAAGA AAAAAAAACCA
 6901 AATTAATTTT GATACATGCT GCATGTGAAG ACCCCCGCTG ACGGGTAGTC
 6951 AATCACTCAG AGGAGACCC CCCAAGGCAG CGAGACCACA AGTCGAAAT
 7001 GAAAGACCCC CGCTGACGGG TAGTCAATCA CTCAGAGGAG ACCCTCCAA
 7051 GGAACAGCGA GACCACAAGT CGGATGCAAC TGCAAGAGGG TTTATTGGAT
 7101 ACACGGGTAC CGGGCGACT CAGTCATCG GAGGACTGGC GCCCCGAGTG
 7151 AGGGGTTGTG GGCTCTTTA TTGAGCTCGG GGAGCAGAAAG CGCGCGAAC
 7201 GAAGCGAGAA GCGAAGTGTG TGGTAGTTC AAATAAGGCA CAGGGTCATT
 7251 TCAGGTCTT GGGGCACCCCT GGAAACATCT GATGGTTCTC TAGAAACTGC
 7301 TGAGGGCTGG ACCGCATCTG GGGACCATCT GTTCTTGGCC CTGAGCCGGG
 7351 GCAGGAACCTG CTTACCCACAG ATATCCTGTT TGGCCCCATAT TCAGCTGTT
 7401 CATCTGTTCT TGGCCCTGAG CCGGGGCAGG AACTGCTTAC CACAGATATC
 7451 CTGTTGGCC CATATTCAAGC TGTTCCATCT GTTCCTGACC TTGATCTGAA
 7501 CTTCTCTATT CTCAGTTATG TATTTTCCCA TGCTTGCAA AATGGCGTTA
 7551 CTTAACGCTAG CAGATCTGCT AGCTTGCCAA ACCTACAGGT GGGGTCTTTC
 7601 ATTCCCCCCT TTTCTGGAG ACTAAATAAA ATCTTTATT TTATGCGCAC
 7651 ATTCCCCCGA AAAGTGCCAC CTGACGTCTA AGAAACCCATT ATTATCATGA
 7701 CATTAACTA TAAAAATAGG CGTATCACGA GGGCCTTTCG TCCGCACATT
 7751 TCCCCGAAAAA GTGCCACCTG ACGTCTAAGA AACCAATTATT ATCATGACAT
 7801 TAACCTATAA AAATAGGCGT ATCAGGAGGC CCTTCGTCC

- 41/56 -

pRetroOFF-U19tsa58 Length: 8852

1 TCGAGTTAC CACTCCCTAT CAGTGATAGA GAAAAGTGA AGTCGAGTT
 51 ACCACTCCCT ATCACTGATA GAGAAAAGTG AAAGTCGAGT TTACCACTC
 101 CTATCACTGTA TAGAGAAAAGT GAAAGTCGAG TTTACCACTC CCTATCACTC
 151 ATAGAGAAA GTGAAAGTCG AGTTTACCAAC TCCCTATCAG TGATAGAGAAA
 201 AAGTGAAGT CGAGTTTAC ACTCCCTATC AGTGATAGAG AAAAGTGAAG
 251 TCGAGTTAC CACTCCCTAT CAGTGATAGA GAAAAGTGA AGTCGAGCTC
 301 GGTACCCGGG TCGAGTAGGC TGTCAGGTG GGAGGCCTAT ATAAGCAGAG
 351 CTCGTTAGT GAACCGTCAG ATCGCCTGGA GAGGCCATCC ACGCTGTTT
 401 GACCTCCATA GAAGACACCG GGACCGATCC AGCCTGCGGC CGCTTAATTA
 451 AGTTAAACG GATCCxxxxx xxxxxxxatgc catctagtgc tgatgagget
 501 actgctgact ctcacacattc tactcctcca aaaaagaaga gaaaggtaga
 551 agaccccaag gactttccct cagaattgtc aagtttttg agtcatgtc
 601 tgtagtaaa tagaactctt gcttgcttt ctatttacac cacaagaa
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 901 gtgggttaaa ggagcatgtt ttaatccag aagaagcaga gaaaactaaa
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 1051 aaatgtgtt aaaatgtatt aaaaagaac agccacgcca ctataagtgac
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 1151 aaaaaccata tgccaacagg ctgttgatc tggttagct aaaaagcggg
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 1251 gatcttttgg ataggatggaa tataatgtt ggttctacag gctctgtga
 1301 catagaagaa tggatggctg gaggatgtt gttttagctt gtttgc
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 1451 tacatttagca gctgctttgc ttgaattatg tggggggaaa gttttaat
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 1701 agaactcaaa tattttccccc tggaaatagtc accatgaatg agtacagtgt
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 1851 agaataattc aaagtgccat tgctttgcctt cttatgttaa ttggtagac
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 1951 aagagagatt ggacaaaagag tttagttgt cagtgatca aaaaatgaag
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 2151 tcccaaggctt catttcaggc ccctcagtc tccacagtctg ttcatgtatca
 2201 taatcagccca taccacattt gttaggttt tactgtttt aaaaacac
 2251 ccacacccctt ccctgtaccc gaaacataax xxxxxxxxxxxx ggatccCCCG
 2301 GGAACAAACAA CAATTGCAATT CATTATGTT TTCAGTTCA GGGGGAGGTG
 2351 TGGGAGGTTT TTTAAAGCAA GTAAAACCTC TACAAATGTTG GTATGGCTGA
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 2501 GTACTCGTCA ATTCCAAAGGG CATCGGTAAA CAGAGCGCC TAGGGGGCGG
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 2651 GCGGTATAAG TGGAGCTCGT CCCCCCAGGTG GACATCGTC GGGGGGGCGG
 2701 TCGACAGTCT GCGCGTGTG CCGCGGGGGAG AAAGGACAGG CGGGGAGCCG
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 2951 GCTTGTGTAATAATGGGG CATACTATCA GTAGTAGGTG TTTCCCTTTC
 3001 TTCTTTAGCT ACTTGATGCT CTGATCTTC CAATACGCAA CCTAAAGTAA
 3051 AATGCCAAC AGCGCTGAGT GCATATAATG CATTCTCTAG TGAAAAACCT
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 3151 TGTAGGCCGT GTACCTAAAT GTACTTTTGC TCCATCGCGA TGACTTAGTA
 3201 AAGCACATCT AAAACTTTA CGCTTATTAC GAAAAAAATC TTGGCAGCGT

3251 TCCTCCTCTA AAGGGCAAAA GTGAGTATGG TGCCTATCTA ACATCTCAAT
 3301 GGCTAAGGGC TCGAGCAAAG CCCGCTTATT TTTTACATGC CAATACAATG
 3351 TAGGCTGCTC TACACCTAGC TTCTGGCGA GTTACGGGT TGTTAAACCT
 3401 TCGATTCCGA CCTCATTAAG CAGCTCTAAT GCCTGTTAA TCACCTTACT
 3451 TTTATCTAAT CTAGACATGG TGGAAGCTT TTGCAAAAGC CTAGGCCTCC
 3501 AAAAAAGCCT CCTCACTACT TCTGGAATAG CTAGAGGCC GAGGCGGCCT
 3551 CGGCCTCTGC ATAAATAAAA AAAATTACTC AGGCATGGGG CGGAGAATGG
 3601 GCGGAACCTGG CGGGAGCTTAG GGGCGGGATG GCGGGAGTTA GGGGCGGGAC
 3651 TATGGTTGCT GACTAATTGA GATGCATGCT TTGCATACTT CTGCTGCTG
 3701 GGGAGCCTGG GGACTTCCA CACCTGGTT CTGACTAATT GAGATGCATG
 3751 CTTTGCTAC TTCTGCTGC TGGGGAGCCT GGGGACTTTC CACACCTAA
 3801 CTGACACACA TTCCACAGGT CGACTAGATC GAATTCTCAA TTGTTTACG
 3851 CGGCCGATG CATGGGGTCG TGCGCTCTT TCCTGGGGC GCTCGGGTC
 3901 GTGGGGCGGG CGTCAGGCAC CGGGCTGCG GGTCTGCAC CAGGTCGCG
 3951 GGTCTTCGG GCACTCGACG TCGCGGTGA CGGTGAAGCC GAGCCGCTCG
 4001 TAGAAGGGGA GTTGGGGGG CGCGGAGGTC TCCAGGAAGG CGGGCACCCC
 4051 GGCAGCCTCG GCCGCTCCA CTCCGGGAG CACGACGGCG CTGCCAGAC
 4101 CCTTGCCCTG GTGGTCGGGC GAGACGCCA CGGTGGCCAG GAACCACGCG
 4151 GGCTCCTTGG GCCGGTGC GGCGCAGGAG CCTCCATCT GTTGTGCGC
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 4451 CGTACGGCCC TGGGAGCCTG TCGCGGGGT GCGAGGCAGA CGTGGGGCTT
 4501 GTAATCGGTC ATGTTAAGCT GATCCGGCG CGCCCTAGAG AAGGAGTGA
 4551 GGCTGGATAA AGGGAGGATT GAGGCGGGGT CGAAAGAGGA GTTCAAGGG
 4601 GGAGAGACGG CGGGATGGA AGAAGAGGAG CGGGAGGCTT AGGGTGTACA
 4651 AAGGGCTTGA CCCAGGGAGG GGGGTCAAAA GCCAAGGCTT CCCAGGTAC
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 4801 CATCCGACGT TAAAGGTGG CCATTCTGCA GAGCAGAAGG TAACCCAACG
 4851 TCTCTCTTG ACATCTACCG ACTGGTTGTG AGCAGGCCG TCGACATCTT
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 4951 TTTTCAGACA AATACAGAAA CACAGTCAGA CAGAGACAA ACAGAACGAT
 5001 GCTGCAGCAG ACAAAGACCG CGGGCTCGGT TCCAAACCGA AAGCAAAAT
 5051 TCAGACGGAG GCGGGAACTG TTTAGGTTC TCGTCTCCTA CCAGAACAC
 5101 ATATCCTGAC GGGGTGGAT TCCACATCGA CTCCCTCCT CAGGTGGGGC
 5151 CACAAAACG GCCCCAAAG TCCCTGGAC GTCTCCAGG GTTGGGCCG
 5201 GGTGTTCAAGA ACTCGTCAGT TCCACCACGG GTCCGGCAGA TACAGAGCTA
 5251 GTTAGCTAAC TAGTACCGAC GCAGGCGCAT AAAATCAGTC ATAGACACTA
 5301 GACAATCGGA CAGACACAGA TAAGTTGCTG GCCAGCTTAC CTCCCGGTGG
 5351 TGGGTCGGGT GTCCCTGGG AGGGGCTC CGATCCCGGA CGAGCCCCA
 5401 AATGAAAGAC CCCCCGTGAC GGGTAGTCAA TCACTCAGAG GAGACCCCTC
 5451 CAAGGAACAG CGAGACCCACA AGTCGGATGC AACTGCAAGA GGGTTTATTG
 5501 GATACACGGG TACCCGGCG ACTCAGTC TCGGAGGACT GGGCCCCCGA
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 5601 ACAGAAGCGA GAAGCGAACT GATTGGTTAG TTCAAATAAG GCACAGGGTC
 5651 ATTTCAAGTC CTTGGGGCAG CCTGGAAACAA TCTGATGGTT CTCTAGAAAC
 5701 TGCTGAGGGC TGGACCCCAT CTGGGGACCA TCTGTTCTG GCCCTGAGCC
 5751 GGGGCAAGGAA CTGCTTACCA CAGATATCCT GTTGGGCCA TATTCACTG
 5801 TTCCATCTGT TCTTGGCCCT GAGCCGGGGC AGGAACTGCT TACACAGAT
 5851 ATCCTGTTG GCCCATATTC AGGCTGCAGG TGGCACTTT CGGGGAAATG
 5901 TGGCGGAAAC CCCTATTGT TTATTTCT AAATACATTC AAATATGTAT
 5951 CCGCTCATG GACAATAAAC CTGATAAAATG CTTCAATAAT ATGAAAAAG
 6001 GAAGAGTATG AGTATTCAAC ATTCCGTGT CGCCCTTATT CCCTTTTTG
 6051 CGGCATTTG CCTTCCGTG TTTGCTCACC CAGAAACGCT GGTGAAAGTA
 6101 AAAGATGCTG AAGATCAGTT GGGTGCACGA GTGGGTTACA TCGAAGTGG
 6151 TCTCAACAGC GGTAAAGATCC TTGAGAGTTT TCGCCCCGAA GAACGTTTC
 6201 CAATGATGAG CACTTTAAA GTTCTGCTAT GTGGCGGGT ATTATCCGT
 6251 GTTGACGCCG GGCAAGAGCA ACTCGGTGCG CGCATACACT ATTCTCAGAA
 6301 TGACTTGGGT GAGTACTCAC CACTCACAGA AAAGCATCTT ACGGATGGCA
 6351 TGACAGTAAG AGAATTATGC AGTGGCTGCCA TAACCATGAG TGATAACACT
 6401 CGGGCCAAGT TACTCTGAC AACGATCGGA GGACCGAAGG AGCTAACCGC
 6451 TTTTTGAC AACATGGGGG ATCATGTAAC TCGCCTTGAT CGTTGGGAAC
 6501 CGGAGCTGAA TGAAGCCATA CAAACGACG AGCGTGACAC CACGATGCCT
 6551 GTAGCAATGG CAACAAACGTT GCGAAACACTA TTAACGGG AACTACTTAC

- 43/56 -

6601 TCTAGCTTCC CGGCAACAAT TAATAGACTG GATGGAGGCG GATAAAAGTTG
 6651 CAGGACCACT TCTGCGCTCG GCCCTCCGG CTGGCTGGTT TATTGCTGAT
 6701 AAATCTGGAG CCGGTGAGCG TGGGCTCGC GTATCATTG CAGCACTGGG
 6751 GCCAGATGGT AAGCCCTCC GTATCGTAGT TATCTACACC ACGGGGAGT
 6801 AGGCAACTAT GGATGAACCA AATAGACAGA TCGCTGAGAT AGGTGCCTCA
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 6901 GATTGATTTG CGGCCGGCCG CAAACTTCAT TTTAATTTA AAAGGATCTA
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 7101 ACCGCTACCA CGGGTGGTT GTTGCCTGA TCAAGAGCTA CCAACTCTT
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 7201 CTAGTGTAGC CGTAGTTAGG CCACCACTTC AAGAACTCTG TAGCACCAGCC
 7251 TACATACCTC GCTCTGCTAA TCCTGTTACC AGTGGCTGCT GCCAGTGGCG
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 7351 GCGCACCGGT CGGGCTGAAC GGGGGGTTCG TGACACACAGC CCAGCTTGGA
 7401 GCGAACGACC TACACCGAAC TGAGATACCT ACAGCGTGAAG CTATGAGAAA
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 7601 TTTTGTGATG CTCGTCAGGG GGGCGGAGCC TATGGAAAAAA CGCCAGCAAC
 7651 GCGGCCTTTT TACGGTTCCCT GGCCTTTGC TGGCCTTTTG CTCACATGTT
 7701 CTTTCTGCG TTATCCCTG ATTCTGTGGA TAACCGTATT ACCGCCTTTG
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 8701 TTATTATCAT GACATTAACC TATAAAAATA GGCATGACAC GAGGCCCTT
 8751 CGTCCGCACA TTTCGGAA AAGTGCCACC TGACGTCTAA GAAACCATTAA
 8801 TTATCATGAC ATTAACCTAT AAAAATAGGC GTATCACGAG GCCCTTTCGT
 8851 CC

Fig. 23

- 44/56 -

puhd10-3-hII3 Length: 3621

1 ctcgagttt ccactccctt tcagtatcg agaaaaagtga aagtcgagtt
 51 taccactccc tatcgatcg agagaaaaagt gaaagtcgag tttaccactc
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 3151 tggatcgatcgatcgatcgatcgatcgatcgatcgatcgatcgatcgatcg
 3201 tggatcgatcgatcgatcgatcgatcgatcgatcgatcgatcgatcgatcg

- 45/56 -

3251 actctcaagg atcttaccgc tggtagatc cagttcgatg taacccactc
3301 gtgcacccaa ctgatcttca gcatcttta ctgcacccag cgtttctggg
3351 tgagcaaaaa caggaaggca aaatgcgcga aaaaaggaa taagggcgac
3401 acggaaatgt tgaatactca tactcttcct tttcaatat tattgaagca
3451 ttatcaggg ttattgtctc atgagcggat acatatttga atgtatttag
3501 aaaaataaaac aaataggggt tccgcgcaca tttccccaa aagtgcacc
3551 tgacgtctaa gaaaccatta ttatcatgac attaacctat aaaaataggc
3601 gtatcacgag gcccttcgt c

- 46/56 -

pUHD10-3-hIL6

Length: 3752 June 22, 1999 10:32 Type: N Check: 8139 ..

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 151 tgatagagaa aagtggaaat cgagtttacc actccctatc agtgatagag
 201 aaaagtgaaa gtcgagttt ccactcccta tcagtatag agaaaagtga
 251 aagtgcgat taccactccc tatcagtat agagaaaagt gaaagtgcag
 301 ctcggtagcc gggtcgagta ggcgtgtacg gtgggaggcc tatataagca
 351 gagctcgat agtgaaccgt cagatcgct ggagacgcca tccacgtgt
 401 tttgacccatc atagaagaca ccgggaccga tccagccctcc gcgggtggcgg
 451 ccgcctctaga actatgtt ccccaagctt acctgcctatc ccagtacccc
 501 caggagaaga ttccaaagat gtgcgcggcc cacacagaca gcaactcacc
 551 tcttcagaac gaattgacaa aaaaattcgg tacatcttc acggcatctc
 601 agccctgaga aaggagacat gtaacaagag taacatgtgt gaaagcagca
 651 aagaggcaact ggcagaaaac aacctgaacc ttccaaagat ggctgaaaaa
 701 gatggatgtt tccaaatctgg attcaatgag gagacttgcc tggtaaaaaat
 751 catcaatgtt cttttggatg ttgaggatata ccttagatgtc ctccagaaca
 801 gatttgatgat tagtgaggaa caaggccagag ctgtccagat gaggataaaaa
 851 gtcctgatcc agttccatgca gaaaaggca aagaatcttag atgcaataac
 901 caccctgac ccaaccacaa atgcgcctt gtcgacgaaat ctgcaggcac
 951 agaaccatgt gtcgaggac atgacaactc attcattct ggcgcattt
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 1101 ataagatata ttgatgatgtt tggacaacc acaactatgaa tgcagtgaaa
 1151 aaaatgtttt attttgtgaaat tttgtatgc tattgttta tttgttaacca
 1201 ttataagctg caataaaacaa gttaaacaca acaatgtcat tcattttatg
 1251 tttcaggatc agggggaggtt gtggaggtt tttaaagca agtaaaaaact
 1301 ctacaaaatgt ggtatggctt attatgatcc tgcaggccctc gtcgtctggc
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 1401 gcgcggcccg ecggagcaag actcggccgg cgccctgccc gtcccaccag
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 1501 catccggc atgtccctgg gggagccggg agtacatgcgatc
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 2001 cgacaggact ataaagatatac caggcgatcc cccctggaaat ctcctcg
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 2201 gttcagcccg accgctgcgc cttatccggt aactatcgatc ttgagttcaa
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 2301 ttagcagacg gaggtatgtt ggcgggtcta cagatgtttt gaaatgggg
 2351 cctaactacg gtcacacttag aaggacagta tttggatctt ggcgtctgt
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 2451 aaaccacccgc tggtagcggt gtttttttgc ttcgcaggca gcaaggatc
 2501 cgcagaaaaaa aaggatctca agaagatctt ttgatctttt ctacggggc
 2551 tgacgcgtcag tggaaacggaa actcacgtta agggattttgc gtcgtatgc
 2601 tatcaaaaatg gatttcacc tagatccctt taaataaaaa atgaatgtt
 2651 aaatcaatc aaatgtatata tggataaaact tggatgcata gttaccaatg
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 2751 tagttgcgtt actcccgatc gtgtatgatcc ttcgcgtatcgatc ggagggtt
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 2901 gttgtctgc aactttatcc gtcgccttcc agtcttattaa ttgttgcgg
 2951 gaagcttagag taatgtatgc gtcgcgtt atgatgttgc acgttgc
 3001 cattgttaca ggcacgtgtt ggtcgcgttgc gtcgttgcgtt atggcttcat
 3051 tcacgtccgg ttccaaacga tcaaggccagat ttacatgtatc ccccatgtt
 3101 tgcaaaaaaaatg cgggtatcgc ttccgttcc cgcgtatcgatc tcaagatgaa
 3151 gttggccgca gtttatcgc tcatgttataatccatc

- 47/56 -

3201 ttactgtcat gccatccgta agatgtttt ctgtgactgg tgagtactca
3251 accaagtcat tctgagaata gtgtatgcgg cgaccgagtt gctctgccc
3301 gtcgtcaata cgggataata ccgcgcacca tagcagaact taaaagtgc
3351 tcatcattgg aaaacgttct tcggggcgaa aactctcaag gatcttaccg
3401 ctgttgagat ccagttcgat gtaacccact cgtgcaccca actgatcttc
3451 agcatcttt actttcacca gcgtttctgg gtgagcaaaa acaggaaggc
3501 aaaatgccgc aaaaaaggaa ataaggcgaa cacggaaatg ttgaatactc
3551 atactttcc ttttcaata ttattgaagc atttatcagg gttattgtct
3601 catgagcgga tacatattt aatgtattt aaaaaataaa caaatagggg
3651 ttccgcgcac atttcccgaa aagtgccac ctgacgtcta agaaaccatt
3701 attatcatga cattaaccta taaaaatagg cgtatcacga ggcccttcc
3751 tc

- 48/56 -

puhd10-3-tgf

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 61 tatcagtatagagaaaagtgaaagtgcagttaccactccctatcagtatagagaaa
 121 gtgaaagtgcagttaccactccctatcagtatagagaaaagtgaaagtgcagttacc
 181 actccctatcagtatagagaaaagtgaaagtgcagttaccactccctatcagtatag
 241 agaaaaagtgaaagtgcagttaccactccctatcagtatagagaaaagtgaaagtgcag
 301 ctcggtacccgggtcgagtaggcgtgtacggggggctatataagcagagctcgtt
 361 agtgaaccgtcagatcgccctggagacgccatccacgcgttttgcacccatagaagaca
 421 ccgggaccgatccagcctcccgccggccgaattctgcagccATGCACTTGCAAAGGGC
 481 TCTGGTAGTCCTGGCCCTGCTGAACCTGGCCACAATCAGCCTCTCTGTCCACTTGCAC
 541 CACGTTGGACTTCGGCCACATCAAGAAGAAGAGGGTGGAGGCCATTAGGGACAGATCTT
 601 GAGCAAGCTCAGGCTCACCAAGCCCCCTGAGCCATCGGTGATGACCCACGTCCCCATCA
 661 GGTCCCTGGCACTTACAACAGCACCCGGAGTTGCTGGAAGAGATGCACGGGAGAGGGA
 721 GGAAGGCTGCACTCAGGAGACCTCGGAGTCTGAGTACTATGCCAAGAGATCCATAAATT
 781 CGACATGATCCAGGGACTGGCGGAGCACATGAACCTGGCGTCTGCCCAAAGGAATTAC
 841 CTCTAAGGTTTCGTTCAATGTGTCCTCAGTGGAGAAAAATGGAACCAATCTGTTCCG
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 961 TGAGCTCTCCAGATACTTCGACCGGATGAGCACATAGCCAAGCAGCGCTACATAGGTGG
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 1141 ATGTCACACCTTCAGCCAATGGAGACATACTGGAAATGTTCATGAGGTGATGGAAAT
 1201 CAAATTCAAAGGAGTGGACAATGAAGATGACCATGGCCGTGGAGACCTGGGGCGTCTCAA
 1261 GAAAGCAAAAGGATCACCAACCCACACCTGATCCTCATGATGATCCCCCACACCGACT

- 49/56 -

1321 GGACAGCCCAGGCCAGGGCAGTCAGAGGAAGAAGAGGGCCCTGGACACCAATTACTGCTT 1380
 1381 CCGCAACCTGGAGGAGAACTGCTGTGTACGCCCCCTTATATTGACTTCCGGCAGGATCT 1440
 1441 AGGCTGAAATGGGTCCACGAACCTAAGGTTACTATGCCAACTTCTGCTCAGGCCCTG 1500
 1501 CCCATACCTCCGCAGCGCAGACACAACCCATAGCACGGTGGACTATACAACACCC 1560
 1561 GAACCCAGAGGCCTGCTGCCATGCTGCGTCCCCAGGACCTGGAGGCCCTGACCAT 1620
 1621 CTTGTACTATGTGGGCAGAACCCCCAAGGTGGAGCAGCTGTCCAACATGGTGGTGAAGTC 1680
 1681 GTGTAAGTGCAGCTGAgggggatccactagttctagaggatccagacatgataagataca 1740
 1741 ttgatgagtttgacaaaccacaactagaatgcagtggaaaaatgcttatttgaaa 1800
 1801 tttgtatgtctattgcttatttgtaaccattataagctgcaataaacaagttacaaca 1860
 1861 acaattgcattcattttatgtttcaggttcagggggagggtgtggagggttttaagca 1920
 1921 agtaaaacctctacaaatgtggatggctgattatgatcctgcaagcctcgctgtctggc 1980
 1981 cggaccacgctatctgtcaaggccccggacgcgcgcgtccatgagcagagcgcggcc 2040
 2041 ccgaggcaagactcggcgccctgcccgtcccaccaggtaacaggcgtaaccggc 2100
 2101 ctcttcatcggaatgcgcgcgcacccatcagcatcgccggatgtccctggcgacggg 2160
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 2221 aaaaatcactggatataccaccgttgatatacccaatggcatcgtaaaacatttga 2280
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 2401 tgactcgctgcgtcggtcggtcggtcgccgagcggatcagctcaactcaaagtccgt 2460
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 2521 gcaaaaggccaggaaccgtaaaaaggcccggttgcgtggcggtttccataggctccgccc 2580
 2581 ccctgacgagcatcacaaaaatcgacgctcaagtcaaggctggcgaaacccgacaggact 2640

- 50/56 -

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 2641 -----+-----+-----+-----+-----+-----+-----+ 2700
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 2701 -----+-----+-----+-----+-----+-----+-----+ 2760
 ctcacgctgttaggtatctcagttcggttaggtcgctcgctccaagctggctgtgca
 2761 -----+-----+-----+-----+-----+-----+-----+ 2820
 cgaaccccccgttcagccgaccgctgcgccttatccgtaactatcgctttagtccaa
 2821 -----+-----+-----+-----+-----+-----+-----+ 2880
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 2881 -----+-----+-----+-----+-----+-----+-----+ 2940
 gaggtatgttaggcgggtacagagtcttgaagtggctactacggctacactag
 2941 -----+-----+-----+-----+-----+-----+-----+ 3000
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 3001 -----+-----+-----+-----+-----+-----+-----+ 3060
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 3061 -----+-----+-----+-----+-----+-----+-----+ 3120
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 3121 -----+-----+-----+-----+-----+-----+-----+ 3180
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 3841 -----+-----+-----+-----+-----+-----+-----+ 3900
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 3901 -----+-----+-----+-----+-----+-----+-----+ 3960
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- 51/56 -

3961 -----+-----+-----+-----+-----+-----+ 4020
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4021 -----+-----+-----+-----+-----+-----+ 4080
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4081 -----+-----+-----+-----+-----+-----+ 4140
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4141 -----+-----+-----+-----+-----+-----+ 4200
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4201 -----+-----+-----+-----+-----+-----+ 4260
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4261 -----+-----+-----+-----+-----+-----+ 4320
agaaaccattattatcatgacattaacctataaaaataggcgtatcacgaggcctttc
4321 -----+-----+-----+-----+-----+-----+ 4380
tc
4381 -- 4382

pUHD10.3-hflt3 Ligand-exon 6 plasmid Length: 4224

1 CTCGAGTTA CCACTCCCTA TCAGTGATAG AGAAAAGTGA AAGTCGAGTT
 51 TACCACTCCC TATCAGTGAT AGAGAAAAGT GAAAGTCGAG TTTACCACTC
 101 CCTATCAGTG ATAGAGAAAA GTGAAAGTCG AGTTTACCACTC TCCCTATCAG
 151 TGATAGAGAA AAGTGAAGT CGAGTTTACCACTCCTATC AGTGATAGAG
 201 AAAAGTGAAGA GTCGAGTTA CCACTCCCTA TCAGTGATAG AGAAAAGTGA
 251 AAGTCGAGTT TACCACTCCC TATCAGTGAT AGAGAAAAGT GAAAGTCGAG
 301 CTCGGTACCC GGGTCGAGTA GGCCTGTACG GTGGGAGGCC TATATAAGCA
 351 GAGCTCGTTT AGTGAACCGT CAGATCGCCT GGAGACGCCA TCCACGCTGT
 401 TTTGACCTCC ATAGAAGACA CGGGGACCGA TCCAGCCTCC GCGGCCCCGA
 451 ATTCCggggc cccggccga aATGacagtg ctggccgcag cctggagccc
 501 aacaacctat ctccctctgc tgctgtgtc gagctggga ctcagtggga
 551 cccaggactg ctccctccaa cacagccccca tctccctccga cticgctgtc
 601 aaaaatccgtg agctgtctga ctacccgtt caagattacc cagtcaccgt
 651 ggcctccaaac ctgcaggacg aggagctcg cgggggcctc tggcggctgg
 701 tcctggca a cgcgtggatg gagcggctca agactgtcg tgggtccaaag
 751 atgcaaggt tgctggagcg cgtgaacacg gagataact ttgtcaccaa
 801 atgtgcctt cagccccccc ccagctgtct tcgttcgtc cagaccaaca
 851 tctcccgctt cctgcaggag acctccgagc agctgggtgc gctgaagccc
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 951 cgttagagacg gtgtttcacc gtgtcagcca ggatggctc gatccctga
 1001 cctcgTGA tc tgcccgccctc ggcctccaa agtgcttagga ttacagatac
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 1201 cggaggacac cccgcctgg ggagcagggtg ccccccgtcc ccagtccccca
 1251 ggacctgtcg ttgtggagc actgaccgtgg ccaaggccctc atccgtggaa
 1301 gccttaaaca acgcgtgg acagacatct atcatccat ttacaggggg
 1351 aggatactga ggcacacaga ggggagtcac cagccagagg aigtatagcc
 1401 tggacacaga ggaagttggc tagaggccgg tcccttcctt gggccctct
 1451 cattccctcc ccagaatgga ggcacacaga gaatccagca cggccccat
 1501 ttacccaaact cigaacaaag cccCCGGAAT TCGAGCTCGG TACCCGGGGGA

Fig. 26a

1551 TCCTCTAGAG GATCCAGACA TGATAAGATA CATTGATGAG TTTGGACAAA
 1601 CCACAACTAG AATGCAGTGA AAAAAATGCT TTATTTGTGA AATTGTGAT
 1651 GCTATTGCTT TATTTGTAAC CATTATAAGC TGCAATAAAC AAGTTAACAA
 1701 CAACAATTGC ATTCAATTAA TGTTTCAGGT TCAGGGGGAG GTGTGGGAGG
 1751 TTTTTAAAG CAAGTAAAAC CTCTACAAAT GTGGTATGGC TGATTATGAT
 1801 CCTGCAGGCC TCGTCGCTG GCCGGACCAC GCTATCTGTG CAAGGTCCCC
 1851 GGACGCGCGC TCCATGAGCA GAGCGCCCGC CGCCGAGGCA AGACTCGGGC
 1901 GGCGCCCTGC CGGTCCCCACC AGGTCAACAG GCGGTAACCG GCCTCTTCAT
 1951 CGGGAATGCG CGCGACCTTC AGCATCGCCG GCATGTCCCC TGGCGGACGG
 2001 GAAGTATCAG CTCGACCAAG CTTGGCGAGA TTTTCAGGAG CTAAGGAAGC
 2051 TAAAATGGAG AAAAAAAATCA CTGGATATAC CACCGTTGAT ATATCCCAAT
 2101 GGCACTCGTAA AGAACATTAA GAGGCATTTC AGTCAGTTGC TCAATGTACC
 2151 TATAACCAGA CCGTCAGCT GCATTAATGA ATCGGCCAAC GCGCGGGGAG
 2201 AGGCGGTTTGC GTATTGGGC GCTCTCCGC TTCCCTCGCTC ACTGACTCGC
 2251 TGCGCTCGGT CGTTGGCTG CGGCGAGCGG TATCAGCTCA CTCAAAGGCG
 2301 GTAATACGGT TATCCACAGA ATCAGGGGAT AACGCAGGAA AGAACATGTG
 2351 AGCAAAAGGC CAGCAAAAGG CCAGGAACCG TAAAAAGGCC GCGTTGCTGG
 2401 CGTTTTCCA TAGGCTCCGC CCCCCGTGACG AGCATCACAA AAATCGACGC
 2451 TCAAGTCAGA GGTGGCGAAA CCCGACAGGA CTATAAAGAT ACCAGGCGTT
 2501 TCCCCCTGGA AGCTCCCTCG TGCGCTCTCC TGTTCCGACC CTGCCGCTTA
 2551 CCGGATACCT GTCCGCCTT CTCCCTCGG GAAGCGTGGC GCTTTCTCAA
 2601 TGCTCACGCT GTAGGTATCT CAGTCGGTG TAGGTCGTTG GCTCCAAGCT
 2651 GGGCTGTGTG CACGAACCCC CCGTTCAGCC CGACCGCTGC GCCTTATCCG
 2701 GTAACTATCG TCTTGAGTCC AACCCGGTAA GACACGACTT ATCGCCACTG
 2751 GCAGCAGCCA CTGGTAACAG GATTAGCAGA GCGAGGTATG TAGGCGGTGC
 2801 TACAGAGTTC TTGAAGTGGT GGCCTAACTA CGGCTACACT AGAAGGGACAG
 2851 TATTTGGTAT CTGCGCTCTG CTGAAGCCAG TTACCTTCGG AAAAAGAGTT
 2901 GGTAGCTCTT GATCCGGCAA ACAAAACCACC GCTGGTAGCG GTGGTTTTTT
 2951 TGTTTGCAAG CAGCAGATT CGCGCAGAAA AAAAGGATCT CAAGAAGATC
 3001 CTITGATCTT TTCTACGGGG TCTGACGCTC AGTGGAACGA AAACCTCACGT
 3051 TAAGGGATTG TGGTCATGAG ATTATCAAAA AGGATCTTCA CCTAGATCCT
 3101 TTAAATTAA AAATGAAGTT TTAAATCAAT CTAAAGTATA TATGAGTAAA
 3151 CTTGGTCTGA CAGTTACCAA TGCTTAATCA GTGAGGCACC TATCTCAGCG

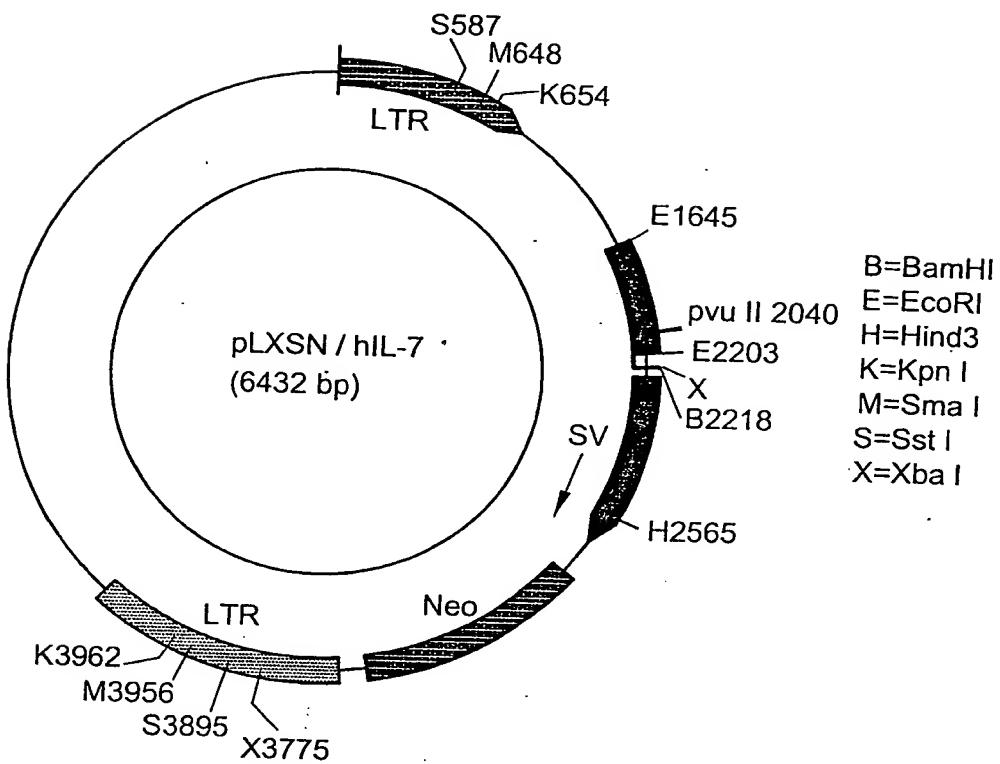
Fig. 26a

3201 ATCTGTCTAT TTGTTTCATC CATAGTTGCC TGAATCCCCG TCGTGTAGAT
 3251 AACTACGATA CGGGAGGGCT TACCATCTGG CCCCAGTGCT GCAATGATAC
 3301 CGCGAGACCC ACGCTCACCG GCTCCAGATT TATCAGCAAT AAACCAGCCA
 3351 GCCGGAAGGG CCGAGCGCAG AAGTGGTCCT GCAACTTTAT CCGCCTCCAT
 3401 CCAGTCTATT AATTGTTGCC GGGAAAGCTAG AGTAAGTAGT TCGCCAGTTA
 3451 ATAGTTGCG CAACGTTGTT GCCATTGCTA CAGGCATCGT GGTGTCACGC
 3501 TCGTCGTTG GTATGGCTTC ATTCAAGCTCC GGTTCACCAAC GATCAAGGCG
 3551 AGTTACATGA TCCCCCATGT TGTGAAAAAA AGCGGTTAGC TCCCTCGGTC
 3601 CTCCGATCGT TGTAGAAGT AAGTTGGCCG CAGTGGTATC ACTCATGGTT
 3651 ATGGCAGCAC TGCATAATTCTCTTACTGTC ATGCCATCCG TAAGATGCTT
 3701 TTCTGTGACT GGTGAGTACT CAACCAAGTC ATTCTGAGAA TAGTGTATGC
 3751 GGCACCGAG TTGCTCTGC CCGCGTCAA TACGGGATAA TACCGCGCCA
 3801 CATAGCAGAA CTTAAAAGT GCTCATCATT GGAAAACGTT CTCGGGGCG
 3851 AAAACTCTCA AGGATCTTAC CGCTGGTGGAG ATCCAGTTGCG ATGTAACCCA
 3901 CTCGTGCACC CAACTGATCT TCAGCATCTT TTACTTTCAC CAGCGTTCT
 3951 GGGTGAGCAA AAACAGGAAG GCAAAATGCC GCAAAAAAGG GAATAAGGGC
 4001 GACACGGAAA TGTGAATAC TCATACTCTT CCTTTTCAA TATTATTGAA
 4051 GCATTATCA GGGTTATTGT CTCATGAGCG GATACATATT TGAATGTATT
 4101 TAGAAAAATA AACAAATAGG GGTTCCGCGC ACATTCCCC GAAAAGTGCC
 4151 ACCTGACGTC TAAGAAACCA TTATTATCAT GACATTAACC TATAAAAATA
 4201 GGCATTCAC GAGGCCCTT CGTC

Fig. 26a

- 55/56 -

Recovery of insert: EcoRI



Ref. (HSIL7A)

Insert:375(-10)

E

770
pvu II933(+5)
E

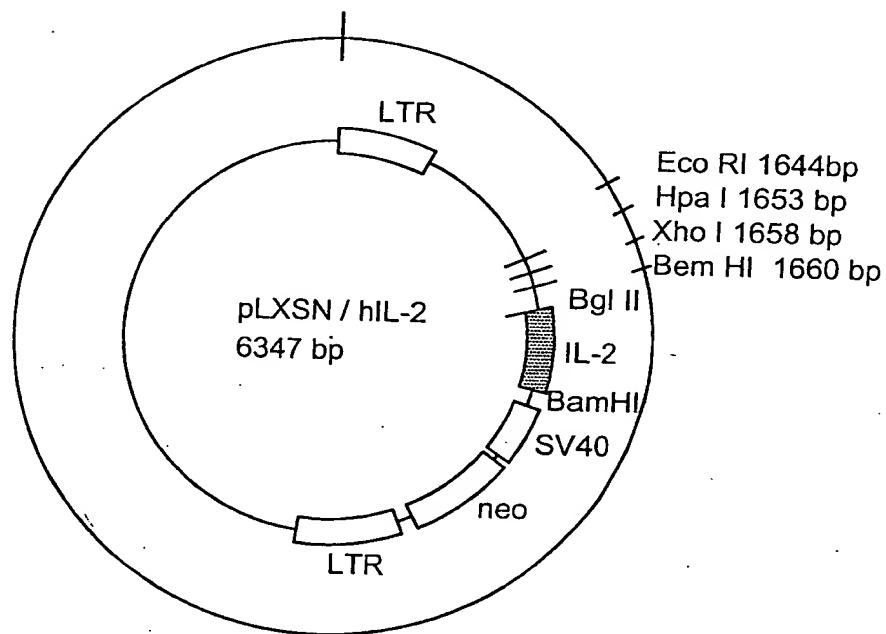
FIG.27

- 56/56 -

Plasmid-chart

Designation: pLXSN/hIL-2
 Insert: hIL-2 (473bp)
 Vector: pLXSN (5874bp)
 Recovery of insert: Eco RI /Bam HI
 Hpa I / Bam HI
 Xho I / Bam HI

Log no.:
 Location:
 Selection: Amp
 Ref.: pLXSN BioTechniques 7,980-987(1989)
 hIL-2 Nature 302,305-309(1983)



Insert: Bgl II
 5' AGA TCT ACA - IL-2 - TAA TTA AGT BamHI 473 bp

FIG.28